Introductory Address

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I WISH to speak on the utility of scientific work in the practice of medicine and surgery; not in the sense of using, for the purposes of practice, all the medical scientific knowledge that has been acquired, but in that of using, after a scientific manner, all the opportunities which practice affords for the acquirement of more knowledge. In our calling careful practice and scientific study should be inseparable; they always may be so; and I want to urge that everyone of you should be, to the full measure of his ability, a scientific student both now and all his life-long. I have seen enough to make me sure that they who, whether they know it or not, do their work after a scientific manner are the best practitioners, and contribute most to the general increase of knowledge. Although, therefore, as I have said, my chief object may be to urge the use of science for gaining fresh knowledge by the study of what may be observed in practice, yet I would have it always understood that whoever will thus work will be all the more useful to his patients, whatever kind of practice he may be engaged in.

I shall not attempt to define "science" or "scientific." Like many of the most useful words in our language, they do not admit of any exact brief definition. What I mean by them may appear as I go on. Many of you are beginning, others have lately passed through, what are especially called your scientific studies, or the scientific part of your curriculum. I could wish that they were not so called, for it seems to imply that the studies following them are not scientific; and to some minds it implies that the studies which are called scientific are not useful—both of which are serious errors. For, to any of you who so choose, clinical study, whether in your pupilage or in your practice, whether in hospitals or in private, may be made as scientific, in any fair meaning of the word, as either chemistry or physiology; and to those of you who so choose the studies of the first two years of the curriculum may be made very useful in after life.

Whether these first years' studies are the best possible, or too many or too few, I shall not now discuss. I have spent too many hours on this question in other places to be willing to spend minutes on it in this. You must take the scheme of education which senates and councils have devised for you and do your best, and you may be sure that, when you have done your best, you will be far more fit for what is next to come than you are now. For, in all these first years' subjects, things are to be learned which, though they may be erroneously called "the foundations" of those to be learned later, are yet of great importance for the understanding of what is to follow. You may learn in them methods of study and the use of instruments for observation which are of the highest utility; and if you will work earnestly at them, these studies will supply a very good training for that scientific method of study which ought to be associated with all the work of your after life. It is, I believe, by this early cultivation of a scientific mind, even more than by the facts which they may teach, that these earlier subjects of medical study may achieve their greatest good. The teaching and continued study of these subjects will be the work of a few, and a constantly decreasing proportion of these few will be engaged in practice; but this makes it the more necessary that the scientific mind and method, the love of knowledge and of the means of gaining it, may abide in all those who take to the life which is called practical, and which may be scientific and is best when it is so.

Now, the first, and certainly in student life the only, safe means for becoming scientific in our profession is the training of the mind in the power and habit of accurately observing facts. Medicine and surgery are eminently a science of observation; deductions from facts are always unsafe; I believe that they have done far more harm than good; and, for the most part, when sufficient facts have been collected and arranged, the general conclusions that may justly be drawn from them are nearly manifest. The main thing for progress and for self-improvement is accurate observation. Some seem to think it easy to observe accurately—they cannot doubt, as they say, the evidence of their senses. There are few greater fallacies. In scientific studies the evidence of the senses needs as much cross-examination as any evidence given in a criminal trial. Self cross-examination it may be, but it must be steady and severe. For by accurate observation we must mean not the mere exercise of the senses, not the mere seeing, or hearing, or touching of a thing, with some levity of thinking about it—we must not mean even the keenest use of the eye cultivated in microscopic work, or of the ear hearing sounds that to the uneducated sense would be inaudible, or the use of the finger with the most refined detective touch. All these higher powers of the senses you must acquire by careful study and practice, and you must learn to exercise them with all the attention with which a strong will can direct and watch them; but even all this, difficult as it is, is only a part of scientific observation. This must include, besides, an habitual constant watchfulness, the taking notice of all the conditions in which objects or events are found; their concurrence, their sequences, their seeming mutual relations, all their variations. To do this, and to do it again and again, and with constant care, whether it be in things occurring naturally or in experiments—to do this accurately and always is really very difficult. A few seem to have the power naturally; there are some born naturalists, some born physicists; you have had some here; but in nearly all men, and, you may safely believe, in yourselves, the power to observe accurately needs careful self-training, self-suspicion, and self-discipline.

If accurate observation were easy, how could we explain the oversights and the errors of which the evidences abound in the whole history of medicine, and which, I think, every one could find in a retrospect of his own work? Look at the history of discoveries. As a general rule, every discovery of things that can be observed tells of previous oversight or want of observation. Some discoveries, indeed, have followed quickly on the invention of improved means of observation, or on the advancement of knowledge clearing away some previous obscurities. These, it may fairly be said, could not have been made much sooner; but of far more it may certainly be said that the discoveries in each generation are evidences of the oversights, the defective or erroneous observations, of men of previous times—even of the best of them. Take some leading instances. All the facts which enabled Jenner to discover vaccination were within the range of his predecessors; they saw and heard of them, but they did not observe them; they all overlooked them, except the one farmer who vaccinated his children, but could not persuade others to follow his example. All the sounds on which Laennec established his system of auscultation were within the hearing of previous generations and of his elder contemporaries; many had heard them, but they did not listen as he did, and they did not observe the conditions in which the different sounds occurred—how each coincided with some diseased process or change of structure in the heart or lungs. All the facts by which Hunter was guided to his operation for aneurysm might have been obvious to other surgeons of his own and lately previous times. They did see them; they did not carefully observe them. I need not multiply examples. Look at any discovery of this or last year, and think whether it might not have been made in the previous year or some years ago; and when you find that it might have been and was not, though men of excellent ability were within reach of it, then you may feel that accurate and complete observation is a really difficult thing, and that for the fulfilment of your duty, whether to science or to your patients, you must cultivate the power of searching and observing with all your might.

I have been more than usually impressed with these thoughts after lately looking through many of my old case-books, and finding in them evidences of more oversights and errors of observation than I had imagined myself guilty of; and though I might console myself by the examples of the distinguished men who did not discover vaccination or the

use of auscultation and did not improve the treatment of aneurysm, yet it made me think that, as an act of penitence, I ought to try to make amends by warning some who are beginning such work as I have so failed in. For instance, among my records are those of nearly all the post-mortem examinations which I made nearly fifty years ago, when I was demonstrator of morbid anatomy at St. Bartholomew's Hospital. They are full and tedious; but the evidences of oversight and of errors in observation are many. I find, for example, complete and full records of the examinations of typhoid ulcers of the intestines; and they are regarded as illustrations of the typhus fever then supposed to be prevailing. Many others were thinking the same, many had thought so years and years before; but about the same time Sir William Jenner not only saw such ulcers, but accurately observed them, and he observed all the conditions with which they alone coincided, and he proved that they were characteristic of a fever essentially different from typhus. In the same records I find long descriptions of the morbid changes in different forms of venous and capillary embolism, but I wholly overlooked and missed their meaning till it was discovered by Virchow and my own pupil Kirkes, and by others more observant than myself. I saw all these things; they accurately observed them; they studied the associated facts; and embolism, which had been destroying healths and lives for ages in secret, was at last discovered.

Do not let me seem to suggest that I deserve credit for having seen these and other like things as if for discoveries for which others have been honoured. Far from this, these are evidences of that very oversight which I want to persuade you to avoid. It is a shame rather than honour to have seen a thing and not observed it; to have been within reach of a scientific truth and not have grasped it.

But, it may be said, these are examples of discoveries made in large fields of observation, and needing long and careful research among many cases; these are not within reach in ordinary practice. Look, then, at some simpler instances. Not a year passes but someone describes a disease of which we had no previous record—a spondylitis deformans, or some new form of myxœdema, an osteitis deformans, or some new manifestation of tubercle or cancer: it matters not what—a novelty. And the first case is thought unique, strange, and, by some, not much worth thinking of; but soon similar cases are found here and there, and the new disease seems hardly rare. I will not say that no new diseases ever appear. I have long maintained that they do: but they do not come among us on a sudden, and we may be certain, whenever a case of a new disease is observed, it is not the first that has occurred or the only one existing; similar cases have been overlooked, they have been within sight and have not been observed. And without doubt there are similar examples of oversight among us still. For example, a distinguished pathologist in Paris has lately described a disease which he names "acromegalie," with singular enlargement of the bones of the face and hands and feet. I cannot suppose that this disease is limited to France; it must, I think, be among us as well; but, so far as I know, no Englishman has yet observed it. Well, I blame no one unless it be myself; I want only to show by facts like these that it is very difficult to observe accurately, and that if you are to do your whole duty, either to your patients or to science, you must now and always study and practise the right methods of scientific observation.

I wish that the arguments for this were only in the oversights, the mere defects of observation. Unhappily the errors illustrated in all the history of medicine, and in much that is still in progress, are very numerous too. Facts, when not quite overlooked, are too often seen and recorded erroneously. I would not speak of such errors without a confession of having contributed to them, or without the fair motive of wishing to urge the best means for avoiding the like of them. For remember that many of them were made, or are being made, by men as honest as we are or ought to be, and as fairly in the pursuit of knowledge.

It would need some volumes to relate all the sources of error in scientific observation. I will mention only one, for I think it is the most frequent, and I should like you to be always watching against it. It is the habit that we have of inserting something of our own, something of our beliefs, of our expectations, nay even of our wishes, into that which we think or say that we observe. We expect facts or events to agree with what we believe that we know, and we make light of the differences and exaggerate the likenesses; we take no thought of what we call accidental exceptions; we think them unmeaning—as if anything in nature could be without meaning,—and we do not half observe them. In philosophy we can separate things from thoughts, the object from the subject; but in ourselves and in ordinary life they are mingled in every act of consciousness and reflection; and sometimes it is only by careful self-analysis and by habit studiously gained that we can separate them and observe simply and accurately.

There is a very common proverb that "seeing is believing," and many, as if trusting it, say, "I must believe what I see." It is often unwise to do so; for the sight, without the aid or control of other senses, is often fallacious. But there are many in every walk of life who, when they say "I believe what I see," might just as fairly say, "I see what I believe"; and these, though they are usually in the wrong, are usually the most positive in their assertions. They believe what they wish, and then they see what they believe; and then they become unable either to see or to believe anything contrary to their wishes—anything contrary to what they call their clear convictions. Well, as a man may see an unexpected likeness of himself in a caricature, so may we all see a defect of our own exaggerated in people such as these. We are all apt to see what we expect to see; to think that the knowledge already gained is so sure that that which is next to come must exactly agree with it. Our safeguard must be in careful scientific study, in the habit of observing without prejudice and with self-distrust, always remembering that everything brought within the range of human knowledge is brought within the much wider range of human error.

And here let me add that, however much the mechanism and other external helps for observation have of late been improved, our mental powers have not increased in the same degree; we are in ourselves as likely to observe erroneously as were our predecessors; in this sense we are not wiser than our fathers. It may even be doubted whether the improvements in the means of observing be more than in proportion to the much larger field and the more minute facts within reach of which we have been brought. It is comparatively easy now to see and do many things which used to be difficult or impossible; but it is not, therefore, easier to see and do new things. The higher we rise on the hill of knowledge the steeper and the more difficult does the ascent become. And we are not yet near the summit: it reaches up to Heaven.

I might speak of many means of helping ourselves in the cultivation of the power of accurately observing, such as reading—which is, perhaps, of all the most important,—and of drawing, collecting specimens, and many more; but I will speak of only one, which is far too often neglected. You will find it, I think, essential to scientific accuracy that you should have the habit of recording very carefully your observations and all the chief facts connected with them. No one should wholly trust his memory in such things; it may lose the facts, or, worse still, may gradually alter them; for, as belief and expectation and other mental states can affect the impressions which we derive from things even when they are present before us, so and much more can they affect those which we try to reproduce in memory. The self is here alone in all its fallibility.

I have heard a very truth-loving person say that if he had ever told the same story ten times he always became doubtful whether he was telling it rightly. You may do well to remember this when you are telling cases. You know the game in which a story is handed on through ten or more persons, and then there appears very little likeness between that told by the first and that told by the tenth. None of them have wilfully changed the facts, but everyone has been a little inaccurate, and the inaccuracies have accumulated. There is some measure of the same difficulty of exact representation of facts by each person's own memory, and we cannot too carefully guard against it. Inaccuracy, it has often been said, has done more harm than falsehood has; and this is certainly true in our own sciences.

Now there can be no better safeguard against these mischiefs than the habit of making studious and careful records of the things that you observe. It should be a constant habit of student life. It is good to make notes of lectures, but better far to write down descriptions of at least some of your own dissections, and of post-mortem examinations, and of cases; and, let me earnestly add, these records should be made whenever and as completely as they can be while you have before you that which you are to

describe, so that you may write down the very facts that you are observing, and may revise them whenever you have a chance in the presence of the same or similar facts. *Ad naturam delineavit* used to be a common inscription on portraits and other such works of art. I wish that *ad naturam scripsit* could more often be justly put upon our scientific records. We ought to be able to have it written on the covers of our note-books, and on all our descriptions of pathological changes; and our records should be full, like finished *ad naturam* portraits made by one who has looked again and again at that which he is painting, not like mere pen-and-ink sketches made after a glance or two and then swiftly put in.

I hope I shall not make your future studies seem utterly hateful to you by thus speaking of them as if they were only full of pitfalls and occasions of mischievous error. Really there are none that you may not avoid; but you cannot be too cautious; so I shall continue my advice, for most of us need to be still more careful when in our studies we pass, as we always do, from observing to thinking, and to what we believe to be reasoning. John Hunter, it is reported, used to say to those who would draw conclusions rather than search for facts, "Don't think; try." Happily for science he often did not observe the rule; he was one of the very few who could really sometimes think a truth far beyond that which could be observed; but we are not all like him, and for all of us the saying is an excellent one, "Don't think; try." Do not suppose that you can safely think what must follow from what you know; try whether it is so. Do not think that you can safely explain what you observe by any hypothesis or theory; and that having thus explained it, there is no need of studying it further. Collect new facts, and "try" your theory by them; and if the theory and the facts do not agree, stick to the facts; they will accumulate into larger truths. We must have theories, or explanations as they are called, of many of the facts which we observe. We need them to help us to the best ways available for arranging the facts, as we need bookshelves for books; and they are useful for suggestions as to what, and where, and how to search for new facts. But here, or hereabout, should be the limits of their use; and the using of theories for purposes beyond these is full of danger, and often a great hindrance to progress.

As one looks back on the relations between the collection of facts in practice and the explaining of them in accordance with the theories which were in successive times accepted, and which were commonly called "general principles," and regarded as safe guides in the treatment of disease, we may fairly doubt whether the gain or the loss were the greater. You will see that in each successive generation every fact observed in practice was accepted, not merely as a fact, but rather as an illustration of some pathological doctrine of the time. Mercury was, at different times, an antiphlogistic, a depurative, an alterative, and I know not what besides; harmless words if they had not been used as facts; but because it was thought, not known, to be all these and more, it was so misused and did so much harm that it nearly lost all its just repute, and many disused it. Similarly, bleeding was practised in excess, not so much because of the good it sometimes did, as because the physiology of the time seemed to prove that it must be useful in a large number of conditions in which it was not. And because this was deemed sure, men overlooked the evidence that it was often useless and sometimes mischievous; they did not observe; they preferred thinking, and they thought erroneously, and were guided by their thoughts more than by the facts. Now, these were errors of men as honest and as clear-headed as any in our own day, and among them were some to whom medicine owes great help to progress. Surely, it should make us very cautious. I have cited old historic errors, but exactly similar modes of thinking are everywhere prevalent, exactly similar fallacies in letting doctrines rather than facts serve as our guides in practice. And we need the more caution because this assumed power of explanation is so much more attractive than the gathering of facts. The explanations are so much more our own; like very parts of ourselves; so much more impressive; they sound so learned, patients admire them; some, I have often thought, would rather have their maladies explained than have them cured.

I feel, again, that it may seem as if I thought of you all as entering on a course of study in which there would be only the misery of doubts and failures. It will not be all this. With due caution there may be great happiness as well as great utility in a life full of scientific observation. But it is impossible not to feel in oneself and to see in others how great is the risk of error, how great the risk of utter waste of time in anything but careful study; not to see how an error once begun becomes much more dangerous when we put thoughts into words; and then the words, as if with right, assume the force of facts, and then become guides to ourselves and others, even when we have the care of human lives entrusted to us. And, too surely, the further men pursuing scientific knowledge go from facts, the wider and the pleasanter become the ways of error to those who do not watch and guard every step they take. It is not in the religious life alone that the allegory of the ways is true; equally in science "straight is the gate and narrow the way that leadeth unto" truth, "and few there be that find it." In both alike he that will may find the way; and in both alike he may do well to remember a saying of Faraday, who lived, with equal earnestness, both the religious and the scientific life. Faraday said: "The education which I advocate has for its first and last steps humility."

I said just now "he that will"; I have spoken of the methods of scientific study, of its machinery; but, it may be asked, what is to be the force? what the driving power? It must be each man's will, by whatever motive stirred; when the will is wanting the most perfect scheme is useless; and let me take a privilege of age, and say to the much younger who are here as students that this will must be used and cultivated now, and from first to last, and that the will is even much more important at first than at last; for at last will becomes habit, as certainly for mental as it does for muscular uses. You know this well enough, for every exercise of the limbs, for every kind of athletic dexterity; the movements which required at first the constant force and direction of your will become at last so easy that you are scarcely conscious that the will is engaged in them. It is nearly the same with mental work; but for this, equally or even more, the will must be rightly and earnestly exercised during the whole of student life. Such as the student is, such will be the practitioner.

I have put in print an anecdote of Mr. Abernethy which bears on this; and let me say he ought to be remembered not as a rough wit or a mere eccentric, but as a man of rare sagacity, an admirable surgeon and teacher, and one of the most graceful scientific writers of his time. Entering his lecture-room at the beginning of a session, he looked round at the crowd of students and said solemnly, "Good God! what will become of you all?" Many years afterwards I tried to find an answer to such a question; tried in the dullest way—by statistics. I traced the careers of a thousand of my pupils. I need not give the numerical results; but the general and certain rule was as I have said: such as the student had been, such was the practitioner. There were some few exceptions, but the general rule was clear; and so you may be sure it always will be. So, if you are to be hard-working scientific practitioners, as I hope you will be, you must be hard-working scientific students; you must be always learning for yourselves; always observing, recording, collecting truths; searching for new truths as well as accepting those which you will be told by your teachers. And let me say again and again this will be the best way by which you may become as good practitioners as you possibly can be, and may go on in practice constantly becoming better and constantly acquiring fresh knowledge for others as well as for yourselves.

Often when I have been urging these things I have been told that in ordinary practice there is no time for observing or recording anything useful for science; and that, even if there were time for it, the cases are such as cannot be usefully studied.

Well, as to time, I hope you may all be overwhelmed with practice, and then you will be able to illustrate what I believe is usually true, that none find so much time to spare as they that have too much to do and do it with all their might. And as for the cases, I must admit that a very large number of the cases in private practice cannot be studied minutely or fully enough to yield useful knowledge; and certainly the practitioner may often look with envy on the physiologist, who can choose his study wherever novelties are most nearly within reach, and the renown of discovery may most easily be gained. Still, if there be only a mind for the work, any sort of practice will supply materials; science is possible anywhere and everywhere, even in small country practices. There are evidences enough of this around us; or, if great examples are needed, Jenner was in such a practice when he discovered vaccination, and

it was no chance discovery, but the outcome of very careful analytic observations. Koch was a country practitioner in Silesia when he first showed the plant-nature of a specific morbid poison. Mayer was a poor country practitioner when he began his marvellous work on the correlation of forces; and nine-tenths of the honour due for the discovery of anæsthetics must be assigned to ordinary dentists, who worked without knowing it after a sort of scientific fashion. But you need not be ambitious for discoveries equal to those. Good will be done both to yourselves and to others by the observation and careful record of single rare cases or groups of cases of almost any kind, for literally nothing that is published is now lost.

I need not speak of the radiation of knowledge from scientific centres, such as you have here; it is diffused as far every year in all such meetings as those of the British Medical Association and of its numerous branches; further still, it is carried on and on by our medical journals; and from these, those admirable helpers of all good progress, the index-makers, with my friend Dr. Billings for their chief, and with Dr. Neale among ourselves, bring everything within orderly arrangement for those who will wisely search books as well as nature.

But, indeed, there are much larger subjects for which general practice, such as, I suppose, most of you will be engaged in, offers by far the best opportunities for study. Take, for instance, that of the inheritance of disease, than which there is scarcely one more important, either in daily practice or in the profoundest questions of pathology. Facts are wanted for its illustration, which none can supply so well as those who are distinctly family practitioners, and can learn the histories of families. Hospital practice is nearly useless for the study of the inheritance of the most important diseases, and consultation practice is, as I know, scarcely better. If one ventures, in a serious consultation, to ask the relatives of a patient anything about consumption, scrofula, cancer, or even gout, the commonest answer is at once, "Oh, nothing of the kind has ever happened in our family," and the answer is often given as if one had suggested suspicions about the family respectability, as if one had asked whether the father of the family was really an honest man. The facts are either not known, or they are willingly forgotten; and, in any case, negative statements of this kind are nearly valueless. Most persons know what their parents died of or suffered with, and some will tell; but very few can tell much of all their grandparents, and I have only found two who could tell me anything useful about the illnesses or deaths of more than two of their six or eight great-grandparents. Yet from any of these, to say nothing of still more distant ancestors, a tendency to any disease may have been inherited, and may determine the characters of any illness in the inheritor. It is common to see in a person still living a likeness in form or face to the portrait of some remote ancestor; and not rarely it is a likeness which seemed to have been lost in the intermediate generations. But likeness in external features is not more transmissible than are likenesses—whether in shape or in other properties—in any other part: as in liver, stomach, heart, blood, or lungs. We can see the one likeness more easily than the others; but there is no reason or probability that one manner of inheritance should be more frequent or exact than another.

I can see no better hope of gaining facts on these points than by the knowledge which may be gradually acquired by practitioners who, by their personal knowledge, or by record or careful inquiry, can tell what have been the prevalent diseases of members of the same family, or of families intermarrying, during two or three or more generations. Doubtless the knowledge thus gained will be incomplete, but it will be better than any we yet have or are likely to gain by any other means; and its importance in pathology cannot be overstated.

I said just now that negative evidence as to the inheritance of disease is useless; but I should have added that this means only the evidence of patients and their friends. The negative evidence of family practitioners might be very useful; it would be so, for example, if it could tell what proportion of children and of grandchildren do really escape a disease which can be transmitted. Suppose a woman dying with cancer. How many of her children living, say, to sixty will not have it? and how many of her grandchildren? I think I can be nearly sure that on the whole very few would, but no one really knows. It might be ascertained by fathers and sons practising together in places where families are apt to hold firm to their homes.

So, too, observations carefully made in private practice might clear up some questions concerning the mingling of diseases. Suppose, for example, that anyone were asked what are the probabilities of life and health in the members of a family of whose four grandparents one had gout, another cancer, another tuberculosis, another chronic rheumatic arthritis? I know no one who could answer. Yet cases of the kind are not rare, and the questions involved in them are very important for practice, for pathology, for life insurance. Every person may be reckoned as one on whom converge liabilities to the inheritance of any or all the heritable diseases from which his ancestors have suffered. Now, do any of them in their transmission and convergence modify or annihilate one another? Are any mutually exclusive? Unless some such change ensues, it is hard to imagine how our population should increase and maintain its working power. Or, again, are any capable of combining as in an organic compound? and what is that compound? Surely here are questions enough for anyone who in the opportunities of family practice will study them carefully and record them. They are among the many questions that can be settled only by facts, and many of you will have the facts within your reach.

I could easily add to the list of subjects for which the ordinary practice of our profession, whether in families or in hospitals, or dispensaries, whether private or in the public service, offers the best possible opportunities for scientific study. Such are the utilities and adaptations of proposed new medicines, the testing of them with much more than usual doubt and patience; the distribution of disease in reference to soil and other local conditions, and many more. Only learn to study after the right manner, and, as all who have had experience in it will tell you, you will find it a source of very rare happiness and utility, and of no harm whatever. There are some, indeed, who would tell you that the scientific man is ill-fitted for anything but science; that he cannot be punctual, business-like, a plain speaker, pious, or I know not what else. It would be difficult to find greater nonsense in any of the books or journals on a modern book-stall. There is nothing that a man may not be at the same time that he is scientific. I would not make light of anything that would hinder you from being business-like; for I should have to admit that I have known more failures in our profession through want of this quality than from the want of any other; more than from the utterest want of scientific or even of good practical knowledge. But the failures were not only among the scientific. Surely I need not say in Manchester that good men of science may be also good men of business; and what may be seen here may be seen everywhere. If a man of science cannot be business-like, it is the fault of his brain, not of his study; he would have been the same in any other pursuit in life. Devotion to science may be combined with whatever is good or evil; but in our profession its associations with what is good are far more predominant, and it may give a good direction to many mental dispositions which are apt to drift into mischief or to folly or to waste of time. But I need not dwell on these. It will be enough if you will bear in mind its utility for those whose lives and happiness will be committed to your care. As long as you live, the more and the better you study, the more you will know, and the more good you will be able to do; and this good will be of the kind that may be most real—the good not only of lengthening men's lives, but of increasing their working power and their happiness. And this is the better. Time is not the best or only measure of the value of life; for now, as distance may sometimes be best estimated, not by space but by the time required to traverse it, so each life, as to its quantity, should be measured, not by years, but by the work done in it. The good that medicine and surgery may do is not half estimated by bills of mortality that prove only an average greater length of life. More good is done by making a larger part of each life more fit for working; and in this may be a measure of utility such as may be unmatched in any other calling. Herein may be your utility; herein will be your duty; herein your grave responsibility.

And one word more. We boast of the progress of medicine and surgery in the last fifty years. We try to tell all the good that it has brought to men. In the next fifty, through which I hope you will all live, the gain will be still greater; for the progress of knowledge is with increasing velocity.

Now, how much will each of you contribute to this progress? None can tell. But this at least is certain, that you are bound, by plain duty, to do your best to contribute to it largely: even as it is every man's duty to do all the good he can by all the means that can fairly come within his power. And remember always that wherever power is, there is duty; and wherever duty, there responsibility to God and man.

A CASE OF LYMPHOMA AFFECTING THE LARYNX, EYELID, AND CEREBRAL MEMBRANES.

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THE following case illustrates in a remarkable degree the truth of the present views with regard to lymphomata—viz, that they are liable to occur wherever lymphoid tissue is present in the healthy state. The distribution of the overgrowths of lymphoid tissue in this instance was peculiar, but apart from this peculiarity the anatomical character of the tumours was not in any way abnormal. Many of the minor clinical details not directly relevant to the main points of the case have been omitted for the sake of brevity. I am indebted to the kindness of Dr. Bristowe and Dr. Felix Semon for permission to make use of the notes taken under their supervision during the period of the patient's stay in St. Thomas's Hospital.

Mrs. B——, aged forty-one, wife of a builder, a small spare, delicate-looking woman, was seized in May, 1885, with sudden vomiting of large quantities of dark blood, fluid and in clots, which continued more or less during three days. She had been confined nine weeks previously, the labour having been natural and easy, but since that time she had had much swelling about the glands in the neck, a sore throat, and some difficulty in swallowing. It appeared that she had been subject to enlargement of glands about the sterno-mastoid muscles on both sides for the last two years. They had sometimes been more actively swollen on the one side and sometimes on the other, but had occasionally almost entirely subsided. One year ago a smart hæmorrhage had taken place, proceeding, as far as the patient's account indicated, from the tonsils. About the same time she had also had an attack of pleurisy, and possibly pneumonia. Her voice had been decidedly weaker ever since, but had never been quite lost. A slight phthisical taint could be traced in the family history on the mother's side, but the patient's own family of five children were apparently free from any signs of strumous or other constitutional peculiarity. There were no indications upon which to found anything more than a conjectural diagnosis of the origin of the blood. General physical examination disclosed nothing abnormal about the abdomen. The urine was natural. The heart's sounds were feeble, but clear at the apex, a faint systolic murmur being audible in the second left intercostal space. The lungs were quite normal. In the pharynx the left tonsil was greatly enlarged and very pale, feeling hard and lobulated to the touch, and with no evidence of any acute inflammation going on within it. The tongue was generally clean, the bowels constipated as a rule, and the appetite very poor. During the first few weeks after the hæmorrhage the patient gained strength slowly, the tonsil diminished in size, but the glands about the left sterno-mastoid muscle became more swollen and very tender. This condition again subsided, but the patient still remained very feeble and anæmic. On June 30th a certain amount of œdema of the subconjunctival tissue in the right eyelid was noticed, but no cause for it could then be made out. On July 9th the patient had sufficiently recovered strength to admit of the right tonsil being excised. The wound healed well in the ordinary way, and she remained in fairly comfortable health, but still with occasionally enlarged and tender cervical glands, for the next few weeks. Seen again in August, the subconjunctival swelling had considerably increased, the eye being nearly closed; the voice was very feeble and reedy, and there was a troublesome short cough. The glands on the left side of the neck were much reduced, whilst one or two on the opposite side had again increased in size. The larynx was examined for the first time since the extirpation of the tonsil, and it was noted that the epiglottis at its free edge appeared to be normal, but immediately below it and to the left was seen a thickening of the tissues resembling adenoid hypertrophy, and involving the lower part of the left side of the epiglottis, the left ventricular band, and to some extent the left glosso-epiglottic fold. This thickened tissue projected into the larynx, and in its anterior part obstructed the clear view of the left vocal cord. The left arytenoid cartilage was to some extent thickened in the same way, and was nearly if not quite motionless on attempted phonation, the cord itself only showing a very faint attempt at adduction. The patient was at this time seen by Dr. Felix Semon, who attributed the fixation of the left cord to a mechanical, and not to a paralytic cause. Shortly afterwards she was admitted into St. Thomas's Hospital under the care of Dr. Bristowe. During her stay of two months in the hospital no very marked change took place. The swelling of the eyelid increased a little in size, and she complained much of a sensation of pain and pricking in the eyeball. The pulse rate as a rule was high, but there was no rise of temperature. She had no difficulty of breathing or of swallowing, but remained very weak and anæmic. Microscopic examination of the blood did not reveal any changes of importance in it. One month after her discharge from the hospital she was seized at times with fits of dyspnœa, and complained much of choking sensations in her throat, but no definite change could be discovered in its condition, except perhaps a slight increase in the thickened tissue at the back of the tongue. She was readmitted to St. Thomas's, her general condition being very similar to that on her discharge two months previously. The blood was then found to contain a slight increase of white blood-corpuscles, but this increase was apparently only proportional, and not absolute. A small piece of the thickened tissue in the larynx was removed with the forceps by Dr. Semon, and examined microscopically. It was found to be simple lymphoma. The small wound thus caused healed up fairly, and there was no immediate return of the growth. About this time, however, till the end of the case a marked inspiratory stridor was to be noted whenever the patient began to speak. Ordinary respiration was not attended with any sound whatever. Irregular attacks of abdominal pain, vomiting, and diarrhœa ensued, and the patient seemed to lose much ground. The swelling of the eyelid steadily increased in size, and the lid became partially everted, giving rise to much pain and distress. A portion having been examined and found to consist of lympho-sarcomatous material, the growth was completely removed by excision and the edges of the conjunctiva brought together. Some amount of erysipelas set in shortly afterwards, but did not seriously complicate the case. The wound showed a disposition to heal, and there seemed to be hardly any return of the morbid growth. A great deal of occipital pain and throbbing was complained of before the removal of the tumour, and the operation was followed by marked relief to this as well as to the more local troubles in the eye itself. About the middle of December, 1885, a small fluctuating swelling was first noted projecting from the middle of the forehead close to the margin of the hair. In other respects the patient remained in about the same condition. In January, 1886, she was subject to several short attacks of faintness and vomiting, without any manifest cause. The frontal tumour increased in size, but was neither red nor tender; being very soft and fluctuating, it was explored with a capillary needle; but no fluid was withdrawn. It gave rise to very little discomfort, the patient only complaining that it ached sometimes. Until the middle of March the patient maintained strength, and seemed to improve; but after that time, without any obvious cause, she suddenly gave way, became rapidly prostrate, could take no food, and died, exhausted and unconscious, on March 21st.

Owing to unavoidable delays no post-mortem examination could be made until the fourth day, when the decomposition was very far advanced (the coffin had already been closed on that account). The tumour on the forehead was found to be a large lymphomatous growth from the under-surface of the dura mater, which had eaten its way completely through the skull, an opening with ragged edges being left in the frontal bone 4½ in. by 3½ in. in extent. The brain beneath, though much compressed, was healthy. In the neck were several masses of more or less indurated glands, some of

them reduced to hard and almost fibrous material, others being soft and fleshy, but none of them caseous or disintegrated. There was no sign of any fresh enlargement of the tonsils, but the base of the tongue and the left glosso-epiglottic fold were much thickened by infiltration with lymphomatous material. The epiglottis also was thickened and infiltrated on its laryngeal side, the new material having a thickness of a third of an inch below the cushion of the epiglottis. Its free edge, however, was normal. The growth on the left side extended a little over the vocal cord, overlapping it, especially in the anterior third, but not in any way attacking the cord itself. The lymphomatous material, in fact, was limited to those parts in which adenoid tissue normally exists, and was most abundant in and about the ventricle. The swelling thus formed (as will be seen in the annexed woodcut) was not uniformly smooth, but divided by deep and irregular sulci, extending in places almost as far back as to the cartilage. Examined by the microscope, both this tumour and the one on the scalp were found to consist of small-celled tissue, loosely held together by a fine stroma (so loosely as hardly to be coherent in thin sections), and traversed by fibrous septa in places. The bloodvessels in it were small, few, and far

between. There was no marked enlargement of lymphatic glands elsewhere, with the exception of two masses of apparently glandular tissue, much decomposed, close to the spleen. Owing to the condition of the parts their exact relation could not be made out. The stomach and liver were normal, and no source of hæmorrhage could be discovered. The spleen was much decomposed, but not enlarged.

The chief points of interest in this case centre round the singularly abnormal distribution of the adenoid overgrowth. Few, if any, cases are on record of lymphoma affecting the interior of the larynx, and such growths in the eyelid and cerebral membranes are only mentioned in works upon the subject as of possible occurrence. The case, as a whole, may be classed as one of Hodgkin's disease, beginning, as it did, with a chronic affection of the cervical glands, gradually followed by hypertrophy of adenoid tissue in other parts. The clinical history of the diesase differs considerably in different cases, its course being sometimes much more rapid and in others much more protracted than in the present instance, in which there would seem to have been a double process going on at intervals, one group of glands being subject to active hypertrophy whilst another was undergoing precisely the opposite change, the whole set occasionally subsiding to almost their normal proportions. The secondary growths also differed considerably in their activity. The frontal growth was rapidly progressive from its first appearance; the palpebral swelling, though steadily progressive, made a much slower advance; whilst that in the larynx remained almost stationary from the time when it was first diagnosed. It should be noted that the operative procedures, both in the eyelid and in the larynx, were quite successful as far as they went, and gave real relief to the patient, and that neither was followed by any return of the growth or by increased activity of the remainder of it. Although removal of swollen glands under these circumstances is forbidden in most of the text-books of surgery, except in cases of dire necessity, it is probable that much temporary relief to pain or even discomfort might be given by operative measures, when the other features of the case point, as in the present instance, to a decided tendency to recovery on the part of the patient. In the more rapid cases the rule of non-interference is no doubt the best, but in the more chronic cases there is often good reason to suppose that the duration of life would be considerably prolonged thereby and the suffering of the patient materially lessened. In the present case there was no very marked anæmia, the blood only showing a comparatively small diminution in the number of red corpuscles, nor was there the tendency to hæmorrhage which is frequently observed in such cases, although the patient was subject to several small surgical procedures involving some degree of bleeding. The painless course of the frontal tumour, eating its way slowly through the frontal bone and giving rise to no more serious symptom than occasional aching, was by no means in accordance with ordinary experience. The pressure upon the brain beneath, although very considerable in extent, was not marked by any positive symptoms, unless the few attacks of faintness and vomiting from which she suffered during the last few months, can be attributed to it. The case therefore forms somewhat of a pathological curiosity, and, as far as the laryngeal part of it is concerned, a decided rarity, but it may have some bearing upon practical treatment, as showing that free removal of such tumours may afford for a time the greatest local and general relief, even when undertaken, in defiance of the ruling text-books of surgery, under circumstances which are not of themselves sufficiently grave to threaten the life of the patient.

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NOTES OF A CASE OF HEPATIC ABSCESS BURSTING INTO BOWEL; RECOVERY.

BY HUBERT A. BURKE,
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G. J——, aged thirty-four, carpenter, complained first of feeling ill on Feb. 7th, 1887, on board H.M.S. *Orion* at Alexandria. The progress of the case is as follows:—

Feb. 7th: Headache for two or three days. Bowels open by purgatives. Pain in abdomen, over hepatic region. Liver chiefly enlarged, and spleen also. Pulse 88; temperature 99·8°; evening temperature 102°, 102·4°, 101·8°. Ordered diaphoretic mixture three times a day.—8th: temperature 100·8°. Tongue furred. Pain at epigastrium on pressure. No sickness. Pulse 80; temperature 102·2°, 101·6°, 101·6°. Twenty grains of quinine ordered.—9th: Bowels constipated. To have an ounce of castor oil. Temperature 100·2°, 100·2°, 100·4°.—10th: Bowels open three times. Tongue cleaner. Still pain in epigastrium. Cannot sleep. Ordered fifteen grains of quinine. Temperature 101°. Tongue furred. Great tenderness at epigastrium. Poultice to be applied to abdomen. A mixture composed of dilute hydrocyanic acid (five minims) and aromatic spirit of ammonia (one drachm), in an ounce of water, to be taken immediately.—11th: Temperature 98·8°. Still pain at epigastrium. Tongue very furred. Bowels confined. Ordered an ounce and a half of castor oil.—12th (noon): Tongue cleaner. Bowels well open. Pain in epigastrium diminished. Pulse 72; temperature 100°. The acid mixture with gentian (one ounce) to be taken three times a day.—13th: Temperature 99·2°. Some pain in epigastrium at one spot. Ordered ten grains of

sulphate of quinine. — 14th: Temperature 98·6°. Better. Pulse 85. Tongue cleaner. Bowels confined. — 15th: Temperature 98·8°. Bowels not open for three days. To take an ounce of castor oil; also a drachm of hydrocyanic acid mixture three times a day. Evening temperature 99°, 100·6° — 16th (noon): Still pain in epigastrium. Bowels well open. — 17th (noon): Better.—18th (noon): Pain in epigastrium diminished. — 19th (noon): Bowels confined. Ordered a black draught.—20th: Bowels well open. Patient has lost flesh a little. Appetite poor. Has been fed on soups, chicken, rice-pudding, and milk.—25th: Still pain in epigastrium, but general condition improved; so he returned to duty.

This case was considered as one of constipation and dyspepsia, and treated as such. When he went to duty, he still complained of the pain at the epigastrium, and whilst at work he had on many occasions to apply for a purgative, as he always for years had suffered from constipation. He slept fairly well until March 27th, 1887, when he again presented himself to me for treatment.

March 27th: Temperature 101·6°; pulse 110. Skin moist. Complains of great pain in the abdomen. Breath very fetid. Bowels open once after taking a black draught. The following mixture ordered: dilute hydrocyanic acid, five minims; aromatic spirits of ammonia, ten minims; chloric ether, fifteen minims; water, one ounce: three doses.—28th: Temperature 99·6°. Bowels not freely open. To take an ounce of castor oil. Breath still fetid. Low diet. Evening temperature 100°, 100·2°, 100·6°. Still pain in epigastrium, but better than yesterday.—29th: Bowels open; scybala; very fetid. Pain at epigastrium. To apply a mustard plaster to abdomen. Temperature 100·2°.—30th: Temperature 99·6°. On examining the abdomen, there is a hard swelling over the liver, which is circumscribed. No sign of fluctuation to the right of the mesial line of the abdomen below the ribs. Extent ½ in. by 2 in. There is pain on pressure. The general health of the patient is good. He likes his food well. Can lie only on his back. Tongue very foul. Percussion over tumour is dull. Slight bulging of the ribs on right side. Pain on respiration. Short dry cough. Unable to sleep at night. Twenty-five minims of hydrochlorate of morphia to be taken at night. Temperature 100·2°. Bowels constipated. Podophyllin pill (quarter of a grain) given. Bowels open three times; motions very fetid; loose biliary matter, with lumps of hard fæcal matter.—31st: Temperature 99·2°. Swelling very distinct; very prominent when the patient stands up; conical in shape. Liver enlarged. Complains of great pain. Fomentations applied. To take an ounce of acid and gentian mixture three times a day, also to have four ounces of port wine. Restless at night. Repeat morphia.—April 1st: Temperature 99·4°. Swelling larger; hard; no fluctuation; distinct edge around it; pain on pressure; dimensions of whole circumscribed tumour 4½ in. by 3¾ in. Abdomen distended; abdominal veins enlarged. Patient was sick once (bilious matter). Is losing flesh rapidly. Expression of face anxious. Weight of patient 140 lb. Tumour is adhering to abdominal wall, but very slightly. Can lie only on his back; much pain and dragging if he stands up. Bowels not open. Ordered a soap enema. Evening temperature 99·8°, 100·4°, 101°. Ordered low diet, with port wine; also to take acid and gentian as before.—2nd: Temperature 99·6°. Passed a fair night after morphia. Pulse small and weak. Abdomen less distended, as the bowels were well open; had large evacuation of hard fæces, with biliary matter. No sign of fluctuation in tumour, which is getting more conical. Appetite fair. Evening temperature 100·8°. — 3rd: Temperature 99·8°. Swelling in abdomen increased in size downwards. Pulse quick, small. Skin hot. Tongue cleaner. Sleeps after morphia. Distension of abdomen smaller. Evening temperature 101°. Swelling inclined to point in abdominal wall. Skin slightly red. Frequent poultices have been applied to the swelling. Some sense of fluctuation. Ordered a turpentine enema.—4th: Temperature 100°; pulse 104. A very large quantity of scybala, hard and black, evacuated. Swelling now extends to umbilicus; is larger, measuring 5 in. by 4 in. Distension of abdomen gone. Patient says he feels much easier. Urine acid, containing bile, but no albumen. To repeat poultice. Six ounces of wine to be given. Patient is getting very thin; face drawn; expression very anxious.—5th: Temperature 99°. To repeat enema. A large quantity of scybala came away, with some mucus. Swelling more prominent in abdomen; soft; distinct fluctuation; extends upwards to xiphoid cartilage; feels soft in the centre, but hard all round. Urine clearer; contains biliary matter. Repeat poultice.—7th: Soap enema given; a small quantity only retained. Bowels open; motion consisting of small hard lumps of fæcal matter, with a little mucus. 10.20 A.M.: Bowels open again; a large quantity of pus passed, mixed with blood, and having a fetid smell; this gave instant relief to the patient. Swelling soft at one point of abdomen; pits on pressure; slightly glazed; dull on percussion. Six ounces of brandy given. 1 P.M.: Bowels open; more pus and blood passed; at stool twenty minutes; two pints of contents; pan contains urine, a small amount of fæcal matter, and a large quantity of pus and blood. Tumour smaller. Patient is very much relaxed. Temperature 98·6°; pulse 130. Anxious expression of face is gone. Patient much emaciated and very weak from frequent purgation, but is bright and more cheerful. To have six ounces of wine, also soup, milk, &c. Has lost much flesh during the last three days. Ordered half a grain of opium powder, a grain and a half of extract of belladonna, with a sufficient quantity of extract of gentian, every three hours.—7th (noon): Still the same faint sign of fluctuation in swelling, which is much smaller. General condition of patient greatly improved. Takes food well. Not sick. During the last few days the skin has had a slight icteric tinge, also the conjunctivæ. To repeat opium and belladonna; and six ounces of wine to be given. Pulse 104; temperature 99·4°, 100·4°; 100°.—8th (noon): Pulse 124; systolic murmur at apex, probably anæmic. Swelling much diminished; no fluctuation. Bowels open; fæcal matter more normal; some pus and blood.—9th (noon): Doing well.—10th (noon): Better. Swelling very much smaller.—11th (noon): No pain over swelling. Pulse 130. Bowels confined; an ounce of castor oil to be given.—12th: Bowels well open; some pus, but very small amount. Patient better and more cheerful.—13th (noon): Got up to-day for the first time. Diet to be chicken broth with wine. Tonic medicine ordered.—14th (noon): Swelling disappearing. General health good. Bowels confined; castor oil to be taken.—15th (noon): Bowels open.—16th (noon): Swelling smaller and hard. Patient continued to improve in every way; gained flesh and appetite, and the swelling gradually disappeared. On May 1st he went to duty. On April 29th his weight was 146 lb., and on May 31st 155 lb., when there was no sign of the tumour, but merely a feeling of hardness over the part where the tumour had existed.

Patient's previous history.—Has never had any sickness before; no symptom of dysentery at any time. He is well developed. Has not been temperate in drink and has always eaten in large quantities. He has been thirteen years in the navy. He has served only in the Mediterranean, and is now serving at a China station.

Remarks.—The man left Alexandria for Singapore on March 17th and reached here on April 26th, so that he was ill during the whole voyage. Temperature in the sick bay was from 90° to over 100° F.; we had no ice or milk, and everything was against the patient's recovery. The patient came to me on June 6th suffering again from intense pain over the liver, which was evidently a return of his former trouble, and I invalided him home; but the hopes for his ultimate recovery are very small.

Singapore.

ON THE HÆMO-DYNAMICS AND TREATMENT OF CEREBRAL HÆMORRHAGE.

BY LEONARD BRADDON, F.R.C.S.

Is there any situation more hopelessly depressing than the attitude of the physician by the bedside of a severe case of cerebral hæmorrhage? So certain of the diagnosis that he seems able to view the fatal clot through the very skull, perfectly acquainted with the antecedent pathology and the actual mode of operation of the silent force that, as it leaks, destroys, he yet stands helplessly by, the author only of trivial directions, utterances apathetically oracular. From the days of darkness until now no vigorous attempt seems to have been made to deal rationally with an accident that sweeps away thousands of active lives, and the routine of treatment invariably adopted might be designated insignificant, if it were not probably actually injurious. "*Post sanguinis missionem, si non redit motus et mens*," Celsus wrote,

"*nihil spei superest.*" This treatment has, after long ages, been discarded; the three last words, however, seem to be impressed upon the profession with all the indelibleness of despair. In this short article I am neither about to attempt to add to the already clear pathology of the question, nor to recapitulate cases and symptoms; but I wish to draw the attention of the profession to certain aspects of the lesion, which, if they have been before studied, have been since neglected, and which afford, as I believe, grounds for the adoption of strong and, there is every hope, successful methods of treatment.

At the post-mortem table the most striking feature in a fatal apoplexy is the comparatively enormous amount of blood poured out and the force which has been liberated. The grey and white matter is ploughed up in all directions, commissures are burst through, and often smaller vessels torn across. Dr. Wilks says the weight of the clot is commonly 3½ oz.,[1] and from these considerations infers that the vessel must be of great magnitude in such cases. But apart from the fact that the miliary aneurysms of Charcot and Bouchard, the most frequent sources of hæmorrhages, are formed on, usually, the smaller twigs, none of the vessels entering the brain substance are of any magnitude; those from which bleeding has been shown to have occurred have been secondary branches of these; and, inasmuch as it is hardly possible for an artery to be torn completely across, in all cases the seat of leakage must be a hole of very inconsiderable diameter. How, then, is such tremendous force exerted that the extravasation can overcome the resistance of the brain substance, which in a fresh brain exposed to a stream of water is evidently considerable, and in a situation where it is uniformly supported by unyielding walls on all sides must be much more?

When a trephine hole is made in the calvaria and the dura is cut, the brain always bulges slightly into the aperture; at any rate, it never shrinks downward on exposure. This shows, and tracings from the fontanelle and from accidentally exposed brains support the view, that the pressure within the skull is certainly not negative; it is probably a good many millimetres positive, although I know of no exact data on the subject. The extravasation then occurs from an arteriole where the pressure cannot be more than, say, ten millimetres, into tissue confined at certainly an atmospheric pressure; and into this tissue it is extruded to the extent of some ounces, an amount which must considerably add to the condensation of the brain substance and the total intra-calvarian tension. Some estimate of the force exerted may be gained from the flattened aspect which, in severe cases, the convolutions frequently present. By artificially effecting such flattening on a fresh healthy brain it might be possible to reduce such an idea to figures, but I have had no opportunity of doing so. However, the pressure happens and has to be accounted for. It is, in fact, a problem in hydro-dynamics. The first drop, outside the first small rupture, represents, in fact, a miniature but perfectly complete hydraulic press—a "hæmostatic" paradox. Surrounded on all sides by solid, communicating with a small tube, in which the heart-beat works like a piston, every impulse in the arteriole increases the extravasation (perhaps widens the inlet); the total pressure in the arteriole at the seat of rupture is multiplied in increasing dimensions by the area of the extravasation, the force of which is exerted in all directions equally. Thus each heart beat, like the force-pump, increases the quantity of fluid in the hydraulic chamber and the destroying force of the extravasation—only the safety valve is a long way down, at the aortic valves. [One would thus *a priori* assert it to be impossible for cerebral hæmorrhage to occur in a case of aortic regurgitation, so perfect is the analogy.] When the pressure in the bleeding leak is multiplied by the superficial area of even a moderate hæmorrhage, it is easily seen that the force exerted by the latter is very great. Supposing a hæmorrhage of 10 mm. in diameter, and a tension in the arteriole of 10 mm., the total extravasating force would be ($10 \times \pi 5^2 =$) 3750 mm., or about five atmospheres. These figures may be exaggerated, but they are not probably far wrong. Of course it would not take five atmospheres to tear apart brain tissue *outside*, but within the calvaria the resistance to rupture must be considerably greater. In any event, it is evident (1) that the destructive effect of an intra-cerebral hæmorrhage is due to the hydraulic force of the leakage; (2) that as the disruptive power increases in hydrostatic ratio, every second of time is of paramount importance in treatment; (3) lastly, that there is a hopeful method of treatment.

If the views suggested above are correct, every hæmorrhage into the brain unchecked ought to be, it may be said, inevitably fatal. I believe it to be only an accident, contingent on the manner merely of rupture, that every hæmorrhage into the brain from an arteriole little smaller than one of the perforating arteries is not invariably fatal. But one can imagine that (1) the sources of the smaller hæmorrhages are capillary vessels; (2) that in the case of miliary aneurysms, the redundancy of tissue, and in other ruptures fragments of tissue, or clot, may act in a valve-like manner to prevent further leakage; (3) the tendency to early clotting dependent on general (and perhaps unknown local) conditions is, in cerebral as in any other hæmorrhages, the greatest check and natural safeguard against further bleeding.

Assuming, then, the truth of the theory as to the production of the spreading force of the hæmorrhage, the problems of treatment are how to check a commencing, and how to relieve the symptoms due to a large established, extravasation. Inasmuch as every heart beat is a hydrodynamic force fraught with danger, every pulse restrained is treatment for success. Since blood pressure means blood extravasation, every remedy that will lower it will increase the chances of recovery. On these grounds, it seems that text-books and physicians have all for generations erred alike. The patient is generally directed to be laid low; to be kept cool, or even cold externally; to be fed on little, and nothing warm. Drugs, save purgatives, are decried; narcotics are especially condemned. Now, the horizontal posture, if it lower the frequency of the heart beat, increases the blood pressure within the cranium, the outflow from which gravity, best brought to bear in an upright attitude, especially assists. Cold externally means congestion inside. Starvation and cold food mean foregoing the immense advantage of attracting as much blood as possible to the portal system, and so lowering the supply elsewhere. Narcotics producing sleep, during which the brain is anæmic, could not be certainly injurious; and although of doubtful utility in the presence of better drugs, in their absence opium ought not to be despised; it lowers the blood pressure and relieves the brain. As regards purgatives, they are an open question. Trousseau, in his graphic lectures, alone, so far as I know, has adopted such a plan. He makes his patients sit up, take food, and, if possible, exercise. More important than all in medical treatment should be drugs which lower the blood tension. In nitrite of amyl, nitrites generally, pilocarpine, and other tension-decreasing remedies, we have powerful means of treatment. Warmth to the hypogastrium and the hot bath act similarly. But the simplest, the most potent, the most readily applicable, and yet most ignored remedy of all lies in surgical resource. The lesion consists in hæmorrhage from a distant and unreachable source; the remedy, therefore, is to cut off the blood supply by applying pressure to the nearest main trunk. If the seat of the hæmorrhage is diagnosed, the carotid ought to be immediately compressed upon that side, and the pressure should be kept up for several hours in order to give the ruptured artery time to become obstructed by the formation of a clot. In any case, upon the first symptom of hæmorrhage, this operation should be had recourse to instantaneously. That, if this were done in all cases at the first onset, many grave and fatal hæmorrhages would be checked, I have no manner of doubt. From time to time the pressure might, after the first three hours of continuous application, be omitted, and observation be made whether the symptoms of bleeding continued. If it is impossible to diagnose the side of the lesion, both carotids might, in grave cases, be compressed. If continued pressure cannot be applied efficiently, the carotid ought to be tied. This procedure can of course only completely arrest the bleeding where it proceeds from a branch of the external carotid—i.e., is extra-meningeal. But, in spite of the circle of Willis, it must obviously greatly diminish the force of blood-flow from intra-cerebral vessels, of which there is indeed abundant clinical evidence.

Two or three years ago, when dresser to Mr. Howse, in a case of extra-meningeal hæmorrhage for which he trephined, and in which, after turning out the clot, the bleeding could not be checked, I suggested compression of the carotid with the direct intention of checking it by this means, and

[1] Wilks and Moxon, Path. Anat., p. 222.

Mr. Howse approved of the suggestion. In that case I kept up, with his approval, constant pressure for three hours, with the result of arresting the bleeding; and this did not recur. The artery ruptured in this case was evidently of large size, judging from the stream sent out through the trephine aperture. Mr. Howse afterwards reported the case at, I think, the Clinical Society: and subsequently Mr. Charters Symonds, in a paper on the Treatment of Extra-meningeal Hæmorrhage, referred to this case, and advocated compression or ligature for arresting uncontrollable bleeding. But I do not know to whom they credited the original suggestion. It is possible, of course, although not recommended in text-books or known generally, that the plan is by no means novel. However, it is a valuable, the only valuable, resource in cases of beginning intra-cerebral hæmorrhage.

The greater problem remains: Is there any treatment worthy of the name for those more severe and so frequently fatal cases to which one is called, to find a comatose patient breathing stertorously and slow, with dilated pupils and a burdened pulse, with distorted features and turgid veins, with rigid or relaxed or convulsive and twitching limbs, and absent reflexes—with, in fact, any or all of the symptoms which indicate a severe and progressing extravasation within the brain? If the side can be diagnosed, the carotid can still be compressed and the hæmorrhage arrested; but what then? With three or four ounces of blood distending the brain substance, and drowning vitality by mechanical pressure, what is to be done? In many cases, without treatment a speedy fatal issue is obvious, and in such any plan which offers a ray of hope is justifiable. Trousseau, in defending his rejection of the bleeding plan in such cases, compares the clot to a foreign body, which cannot be affected by such measures. His analogy is good; but the general implication is not correct. It is not because extravasated blood is a foreign body that cerebral hæmorrhage kills. In the extra-meningeal case of Mr. Howse already referred to (and which I may be allowed to quote since he has published it), upon removing the bone the symptoms were immediately alleviated, the pulse falling, the dilated pupils contracting, the respiration quickening, the convulsions and rigidity (on opposite sides) ceasing. In a similar case reported in THE LANCET (August 20th) the same thing is noted. Immediate relief follows the removal of the bone, and consequent diminution of pressure. It is, in the graver cases, not only the shock, the diffuse effect of the local lesion, but still more the mechanical pressure of the hæmorrhage, that kills. The nerve centres essential to life are not directly bruised, but the great intra-cranial pressure evidently crushes out their vitality by direct vital interference. Tumours, hydrocephalus, abscesses, act similarly; their pressure destroys. Now, if there be any, ever so small, an opening in the hydraulic press, the hydrostatic paradox is destroyed; and if an opening were made into these cerebral hæmorrhages, at least one avenue to death, that by mechanical pressure, would be barred. There is plenty of evidence in apoplectic cysts, chalky abscesses, cured hydrocephalus, and pachymeningitis to show that extravasations which have not killed by pressure may be absorbed in the brain as elsewhere. And in these days of cleanly surgery meningitis need not be feared. Hence it is no heroic surgery to propose that in a case of bleeding, very grave or tending clearly to a fatal issue, the calvaria should be trephined, and a trocar or bistoury or probe plunged into the brain substance to reach the outpoured mass of blood. A way thus opened for its escape, it is probable that some of it would be gradually extruded; at any rate the intra-cranial pressure would be thus relieved; and with the application of a sitting posture, the use of nitrites, compression of the carotid, and the other measures advocated for checking further bleeding, one may hope for a successful issue to the treatment of this, one of the most fatal and hitherto the most hopeless of all the assaults by which death essays to vanquish the human stronghold.

Upton-on-Severn, Worcestershire.

A CURE FOR MALINGERING.—Some members of a Dresden workmen's benefit society, having gone on the sick list on account of pains of a character that could not be diagnosed by the surgeon, and of alleged inability to use the arm as required for their work, were ordered by the club to attend at the factory where they were employed, to sit on a bench during the whole of the working hours, and to look at the men at work. Scarcely any of them held out for more than a week.

SOME REMARKS
ON THE
KIND OF SPLINT MOST AVAILABLE FOR GUNSHOT FRACTURE OF THE LOWER LIMBS
ON THE FIELD IN CONNEXION WITH TRANSPORTATION.[1]

BY R. F. TOBIN, F.R.C.S.I.,
HON. BRIGADE SURGEON, ARMY MEDICAL STAFF; LATE ASSISTANT PROFESSOR OF SURGERY, ARMY MEDICAL SCHOOL, NETLEY.

MY remarks have reference chiefly to gunshot fractures of the hip and the upper third of the femur; and as whoever has had practical experience of the difficulty of giving to such injuries during transport and subsequent treatment that essential condition to recovery—rest—will gladly welcome any suggestion on this subject that may even in a slight degree be helpful, I shall make no apology for occupying attention during a very brief period.

An appliance that will give rest to a fracture in the locality indicated must fix not only the injured limb, but also its fellow and the trunk as far as the thorax. For it is plain that, if the sound leg is left free, the patient will try from time to time to ease his position by means of it, and so tilt the pelvis and disturb the fractured parts; and that even a still greater amount of disturbance will occur if action of the psoas and iliacus muscles is permitted by the movements of the pelvis and lower half of the spine being left unrestrained. It also seems to me desirable that the appliance selected should fix the injured part by being placed behind it, rather than in front or at one side. A Liston's or a Bryant's splint gives immobility as long as it is supplemented by the patient's bed, but, as far as my experience goes, no splint on which the limb does not rest by its own weight, gives satisfactory support when for any purpose the patient has to be lifted. The foregoing conditions are fulfilled by the splint to which Mr. Thomas of Liverpool has given his name, and by that of Mr. Fagan of Belfast, which was brought to the notice of this Section during the Congress of 1881. To the general employment of these on the field, the difficulty of fitting the one and the costliness of the other are obstacles—obstacles not insurmountable, and which, as the instruments are most useful ones, will, I hope, be overcome. In the meantime, let me bring to notice the following appliance, which affords rest and support in a somewhat similar manner, but by means of materials more available on active service. The patient having arrived at the dressing station, where, by whatever name it may be known in different countries, the wounded first undergo a thorough examination, and it having been decided to make an attempt to save a limb fractured as described, I would proceed as follows: Having treated and dressed the wound after the fashion in vogue for wounds in general, the canvas of a stretcher with removable poles is spread upon the ground, and is cut transversely into two about its centre. The following materials are also made ready: (1) Two pairs of trowsers—viz., that of the wounded man and any other obtainable of about the same size; (2) a few strips of blanketing or a few large towels or other material, of a size to go as a binder round the waist and hips in three or four layers; (3) one stone and a half of plaster-of-Paris; (4) three gallons of water; (5) a bucket or other receptacle in which to mix the plaster and water; (6) three yards of calico torn into three many-tailed bandages; and (7) a roll of cotton wadding. The plaster is mixed with about an equal quantity by measure of water, and into the creamy fluid so formed the two pairs of trowsers and the material that is to go round the waist and hips as a binder are immersed. When these have been thoroughly imbued with the fluid, the trowsers are spread out one over the other on the canvas of the stretcher, the forks of the combined trowsers being made to lie a few inches away from and above the division in the canvas, and a many-tailed bandage placed, ready to be tied, under each leg. The material which is to form the abdominal binder is spread, with a many-tailed

[1] Read in the Military and Naval Section of the International Medical Congress held at Washington. Dr. Marston, in the absence of the author, read the above paper, enlarged upon the method of application, and expressed his opinion that it was an eminently practical and original suggestion. A short debate followed, in which several American surgeons took part and made some practical and pertinent observations.

bandage underlying it, transversely under the waist of the trowsers; and over all a thick layer of wadding is laid. On to the splint thus formed the patient is lowered in such a position that the margin of the fork of the trowsers corresponds to a point two inches and a half above the arms, and that his legs, being immediately over each leg of the trowsers, are about six inches apart at the knees. The fractured limb is held in good position by the surgeon, while two assistants, by tying together the tails of the bandage, bring the splint into close apposition with the posterior surface of the patient's legs, buttocks, and loins, and make the binder encircle the hips and abdomen. As soon as the plaster has set, the poles are passed through the folds in the canvas and the patient is removed. The whole dressing, not including the treatment of the wound and the setting of the plaster, can be applied in less than a quarter of an hour by a surgeon and two skilled orderlies. During the subsequent treatment of the case the canvas of the stretcher is never removed from underneath the patient. When an action of his bowels is about to occur, the poles are put in position, the halves of the canvas are separated, the patient is raised, and a bed-pan passed underneath him. He is lifted in a similar way when his wound requires to be dressed. The situation of this may require that windows be made in the splint and canvas: and in cases where it is apparent that this will have to be done, hoop-iron, if obtainable, should be placed between the trowsers, when first put in position, so as to strengthen the splint under the injured limb.

I regret that (unforeseen circumstances preventing my being present at the Congress) I am unable to show by demonstration how rapidly this splint can be applied and what excellent support it affords. I have not brought it to notice without having first thoroughly tested it by having had it tried on myself in person, and I would strongly urge anyone who may think of using it to do the same. Whoever does so will, I believe, be led to agree in this that, wherever reliable plaster-of-Paris can be obtained, this method of applying it will give very great help in the treatment of a class of wounds than which no others baffle more the skill of military surgeons. Of course the liability of plaster-of-Paris to deteriorate is a great drawback to its use on active service, and it should therefore be tested immediately before being employed. There are also, I know, other objections to its use as a material for splints, but these have force chiefly when it is used so as to surround a limb, and not when it is made to lie against one and take its shape. So employed, it is in my opinion the dressing most available for gunshot fracture of the lower limbs in connexion with transportation.

ON FROTHLESS ALBUMEN IN CERTAIN CASES OF ALBUMINURIA.

BY ROBERT KIRK, M.D. ED., F.F.P.S. GLASG.

IT is not a little remarkable that so striking a phenomenon as the frothing of albumen should have received no attention either from physiologists or clinical observers. The property on which it depends must be intimately connected with the purposes which proteid substances are destined to subserve in the animal system, and it varies in the degree in which it is manifested by different specimens of albumen. In the *Glasgow Medical Journal* for October, 1881, I pointed out the fact that in a few cases of albuminuria the albumen has altogether lost the frothing power, while in a much larger number of cases this property, although not entirely lost, is very much diminished in comparison with that of blood serum. The object of the present communication is again to call attention to these cases, but more especially to record a curious fact which I ascertained last winter—namely, that the more or less frothless forms of albumen appear to consist of a certain combination of serum-albumen and paraglobulin, and that when the latter is precipitated by dialysis or by saturation with salt the power of frothing is again perfectly restored to the albumen.

I first observed this with a watery extract of ox heart, which I had prepared for quite a different purpose. The solution was red, apparently containing a considerable amount of hæmoglobin, and I found on blowing a current of air through it that it was as frothless as water, not a single bubble rising to the surface. Some of it was thrown on a dialyser, and after twenty-four or more hours' dialysis I found, to my great surprise (for the experiment was tried accidentally so to speak), that it now frothed as perfectly as any specimen of serum albumen I had ever seen. There was a large precipitate of paraglobulin, and the mixture had become very viscid and proved difficult to filter. I at once tried the same experiment with a specimen of ropy albumen from an ovarian cyst and with a comparatively frothless albumen from a case of albuminuria, and in both with an identical result. It was even more decided when the paraglobulin was thrown down by neutralising the urine, saturating with magnesium sulphate, and keeping it for twelve hours or longer in a hot-air chamber at a temperature of 100°F. Indeed, merely stirring in a handful of salt was sufficient to produce an immediate and marked effect.

The explanation of this fact is not apparent. In my earlier experiments I had found that the paraglobulin of blood serum frothed nearly quite as well as the albumen, and the serum itself, containing both together, is, as every one knows, highly frothy. I had ascertained also that neither acid nor alkali had any considerable effect on the frothing power, and that neither saturation with salt, nor the removal of salt by dialysis, could destroy it when present. I had not, however, as now, tried the latter two procedures on the frothless forms of albumen, not having the slightest reason to suppose they would exercise any effect on them.

Albumen as it occurs in various exudations has often much less power of frothing than blood serum. I have seen a case of hydrocele serum (second tapping) in which the albumen was as frothless as water. In albuminuria, as far as my observations have gone, I have found that the frothless forms occur in acute nephritis, and generally in the absence of confirmed and chronic renal disease. In any case of albuminuria I invariably regard a deficiency of the frothing power as in itself a very favourable symptom—an opinion which I was led to express in 1881 in the paper above referred to. A case is there mentioned of a patient seventy-five years of age who recovered from severe albuminuria with uræmic symptoms, and enjoyed good health for several years afterwards, and whose urine throughout was nearly frothless. At present I have under treatment a woman of fifty-five years of age who is recovering from dropsy and albuminuria of three months' duration, and complicated with pleurisy, whose urine also, though highly albuminous, has always been less frothy than serum albumen. The experiment of precipitating the paraglobulin has been frequently tried in her case, and has never failed to restore the frothing in a wonderful manner.

To form an idea of the frothing of the urine, it is not sufficient merely to shake it up in a bottle. I have sometimes employed a U-shaped tube, through which air is drawn by an aspirator; but this is too troublesome for ordinary use. It answers tolerably well to put an ounce or two of the urine into a cylindrical jar fifteen or eighteen inches high and about two or three inches in diameter, and to blow a current of air through it by means of a long glass tube conveniently bent. A hand-bellows may be used, but the expired breath answers well, a full expiration giving a tolerably uniform quantity of air in each experiment. In this manner the difference between water, normal urine, various specimens of albuminous urine, and blood serum may be readily demonstrated.

Partick, Glasgow.

ON A NEW METHOD OF TREATING THE VOMITING OF PREGNANCY.

BY WILLIAM DUNCAN, M.D., F.R.C.S.,
ASSISTANT OBSTETRIC PHYSICIAN TO THE MIDDLESEX HOSPITAL.

THE complete and rapid relief which followed the local application of cocaine in the three cases here briefly recorded seems worthy of note:—

CASE 1.—Mrs. W——, aged nineteen (hospital patient), applied on March 11th, saying she "had not been able to keep anything down for the last month." The patient looked emaciated and ill; she was just two months pregnant with her first child. On examination, the uterus was found to be *markedly anteflexed*, and decidedly tender when pressure was made on the cervix. Sims' speculum was introduced, and the whole of the vaginal roof and cervix

freely painted with a 15 per cent. solution of cocaine, a probe covered with cotton-wool and soaked in the solution being carefully inserted into the cervical canal to the depth of three-fourths of an inch. A dose of peppermint-water was ordered (as a placebo) three times a day. The patient returned on March 18th, saying that *she had not vomited once since taking the medicine.* She has continued perfectly well since.

CASE 2.—Mrs. T——, aged twenty-six, nearly three months advanced in her second pregnancy, consulted me for severe vomiting, which had existed for a month. On vaginal examination the uterus was found to be normal in position, but tender on pressure. The same local treatment was adopted as in Case 1. No medicine was prescribed. The result of the treatment was precisely similar, for the patient did not once vomit after the application.

CASE 3.—Mrs. G. R——, aged twenty-three (a hospital patient), two months and a half pregnant, applied on June 17th for relief from constant vomiting, from which she said she had suffered for six weeks. On examination, the uterus was found to be somewhat anteflexed. The same treatment as the foregoing was adopted, except that no application was made to the interior of the cervical canal. Peppermint-water was taken three times a day. On June 24th the patient stated that she had had no vomiting for four days after her last visit, but that then it recurred, although in a less severe form. Another application of cocaine was made; but this time the interior of the cervical canal to the depth of three-fourths of an inch was painted. On July 1st the patient said that no further vomiting had occurred. She could take her food with a relish, and was feeling quite well.

Remarks.—If these cases be not mere coincidences, we have in cocaine, locally applied, a most valuable remedy for the speedy cure of that distressing condition—the vomiting of pregnancy. It will, however, be necessary, before we are in a position to form a definite opinion as to its efficacy, to apply it in many more cases, and it is in the hope that all who have an opportunity will try this simple remedy and publish the result that I venture to report the above cases. It seemed to me that the *modus operandi* of the cocaine would be to remove the morbidly hyperæsthetic condition of that portion of the uterus about the internal os which is supposed to exist in these cases. It is most interesting to note that in Case 1, where marked anteflexion was present, the vomiting completely stopped without any interference with the flexion. It is evident from Case 3 that in order to obtain the full effect of the cocaine it must be applied to the cervical canal, and herein lies the danger, for a careless or unskilful application might easily produce what is of the utmost importance to avoid—viz., abortion; still, with proper care there is very little risk, as I have many times made applications to the cervical canal during gestation without terminating the pregnancy in a single instance.

Harley-street, W.

CASE OF TRIPLETS, WITH MONSTROSITY.

BY H. J. CLEMENTS, L.R.C.P. & S., L.S.A., &c.

ABOUT Sept. 14th, while doing locum-tenens duty for Dr. Beeby, partner of Dr. Ilott of Bromley, Kent, Mrs. G—— called at the surgery to engage the services of Dr. Ilott, for her approaching confinement, which, as far as she knew, would take place about the middle of October. I saw her on this occasion, and inquired when she last menstruated. Her answer was she had not seen anything since her last confinement, which took place about the middle of January, 1886, and that she became pregnant during the time of suckling, but fixed on the middle of October as the most probable date for her confinement. I took particular notice of her appearance, which was very much drawn, with hollow cheeks and expression indicative of anxiety and pain. She informed me that for some time past she had experienced a grinding pain, and could not lie on her right side, and had sensations quite different from any she had ever felt before.

On Sept. 21st her husband called for Dr. Ilott to come immediately, as his wife was in labour pains. Dr. Ilott, being unable to go himself then, asked me to go for him. I arrived at the house at 6.45 P.M., and found Mrs. G—— in bed in a prostrate condition, with little or no uterine action. I was told the liquor amnii had escaped at 3 A.M., but the pains were very slight and wearying all day. On examination, I found the os fully dilated, with the head presenting. I gave her one drachm of a solution of ergot and ammonia in a little water. Some short time after, uterine action showed signs of becoming a little more brisk, but soon died away again. I then discovered the head lower down in the vagina, with the left side of the face presenting, and, having a forceps with me, I introduced the upper blade only, and by its means as a lever brought the head into the proper position, but on taking away the blade it soon turned back again. The mother was growing weaker and uterine action was almost *nil*, so I put both blades of the forceps on, proceeding as before, with the upper one first, and delivered the head. I then withdrew the forceps, waited awhile for uterine help, but in vain, and with the left hand on the abdomen and the fingers of the right hooked round the neck of the child I simultaneously used pressure and traction with but very little result. I again waited awhile, but the uterus did not seem disposed to act, and feeling the delay dangerous to the life of the child, I introduced my finger and with some little trouble brought down the right arm. I repeated this with the left, and having both arms down, I hooked the fingers of my right hand into each axilla and made good traction, at the same time using pressure with my left over the abdomen. By exerting myself thus to no inconsiderable amount, I succeeded after a little time in bringing the child down below the ribs, but could not yet see the cord. Here there was a block. All along there was little or no hæmorrhage, the pulse was weak, and the mother expressed great sense of weariness and dread. I had by this time of course come to the conclusion that there was something abnormal present, and the first idea that suggested itself to me was that there was an unusually short cord attached to a strongly adherent placenta. I now became anxious for help in order to well manipulate the abdomen, and at the same time use traction on that part already exposed, as I believed this to be the only means now left for the expulsion of what remained. My wishes were soon gratified, for Dr. Ilott entered the house and came immediately to my assistance. He took the body of the child in both his hands and made traction backwards and forwards, while I, at the same time, used strong pressure and well kneaded the abdomen. This soon proved successful, for the left buttock appeared inclined to come, which it did, and in about a minute afterwards a broad surface joined to something else made its appearance; this turned out to be the back of another child, and without much more trouble was removed with the remainder of the body, and thus left in our hands an extraordinary specimen of a freak of nature. Nor was this at an end, for having tied the cords and wrapped up the prodigy in a flannel petticoat, I examined the vagina for the placenta, when, to my astonishment, I distinctly felt another bag of membranes unruptured, and feeling through it I found some toes or fingers easily distinguishable, as well as a soft mass, which clearly seemed to me to be the breech of another fœtus. Dr. Ilott then made an examination, and corroborated my opinion, and, there being total absence of pain, the membranes were ruptured, the liquor amnii escaped freely, and we proceeded as before—viz., with external abdominal pressure,—following the uterus well down until the fœtus was expelled by a breech presentation, and a living female child was in our hands. I again made an examination, and found the placenta quite low down, which, with slight external pressure, I easily removed with very little hæmorrhage. The uterus was found to contract very soon after, as was evidenced by its well-known feeling through the external abdominal walls resembling that of a cricket-ball. The mother was weak, but gaining strength, and experienced great relief at having got rid of her burden, though of course terribly grieved on learning the condition of her offspring.

I saw them twice a day up to Sept. 24th, and afterwards took the prodigies to the studio of a photographer, where I had them photographed in three different positions, which clearly shows the point of union, as well as the spina bifida. The grandmother, who nursed them, informed me that they could not retain the milk given them, so I tried to give them some myself in a teaspoon, and found them deficient in the power of deglutition, though I felt satisfied that it was not altogether wanting. They could not, however, take sufficient to sustain life; atrophy set in, and they died on the 24th at 8 P.M., having lived three days.

Description of monstrosity.—The weight a few hours after birth, accurately weighed by myself, I found to be

6 lb. 13 oz. Above and below the union they were like two ordinary children, with one exception—that the skin was somewhat wrinkled and had an unhealthy colour. The union commenced at the lower end of the lumbar vertebra, and extended to the end of the sacrum, but not exactly in the middle line of both, which would make them appear as back to back. The sacrum of one was united by the middle line to the side of the sacrum of the other, so that viewing them from behind they had but two buttocks between them. The sex was female, and it had externally the appearance of only one vagina being present. On examination after death there was found to be a double one, but no urethral orifice could be discovered in the usual site. The mons veneris and labiæ were abnormally large and swollen. There was but one anus, through which meconium passed freely. A spina bifida about the size of a small orange could be seen at the lower end of the lumbar vertebra, where the union of both commenced. There was no deformity anywhere else, as the features, bodies, arms, and legs were not wanting in any particular.

The other child still lives, and is right in every respect. I weighed it at the same time as the others, soon after birth, when I found it to be exactly 4 lb. There was but one placenta, which weighed 2 lb. 9 oz., and was divided into two compartments, one for the prodigy and the other for the separate child. That for the prodigy had one ordinary sized cord, with a supplementary one about half the size attached to its base as it entered the substance of the placenta. The other was covered all over with membrane, the substance of the placenta being nowhere exposed. The cord here went through the membrane, and was attached to the placenta at the wall of the compartment. I took it entire to the museum of the College of Surgeons, and found that there was no specimen like it there. The prodigy was also taken there soon after death, when it was found that, though they had not a specimen exactly like it in preservation, a cast of one similar to it was discovered on the shelves.

Family history.—The father was about thirty, strong, healthy, and born of healthy parents; one of his grandmothers died recently at the advanced age of one hundred and eight years. The mother, aged thirty, had four previous confinements, and suffered from puerperal convulsions with the first child. The third child is affected with infantile paralysis; the others are well. She had nine brothers and three sisters. Four of the brothers are dead; the sisters are all alive. One of the surviving brothers has always been deficient in mental power; one of the sisters is insane, and in a lunatic asylum. Her father and mother contracted a consanguineous marriage, being first cousins, children of two sisters. The mother relates that some three or fourth months ago she received a very great shock when going through the streets. Two men in a dog-cart, driving furiously along, got one of the wheels of their cart locked in a wheel of another cart standing in the street, and dragged it along for some distance. The suddenness of the incident affected her so severely that she was obliged to rest in a shop close by. She felt extremely faint, and soon returned home, but the incident made a deep impression on her.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

ALARMING SYNCOPE FROM SYRINGING THE EAR.

BY J. MIDDLEMASS HUNT, M.B.,
SURGEON TO THE THROAT AND EAR DEPARTMENT, NEWSHAM DISPENSARY, LIVERPOOL.

ON August 7th I was called to see E. G——, a boy of three years of age, and found him in a state of profound coma, with slow irregular respiration, rapid pulse, lividity of lips, cold extremities, dilated pupils—to all appearance, in fact, on the point of death.

The history I got was that the child had suffered from measles two months before, and since then had had a purulent discharge from the right ear. This was being treated, under the direction of a surgeon, by injections of a solution of boracic acid, and on the day in question, just as the mother finished syringing the ear, the child fainted. Till this happened he had been running about, and was apparently quite well. The mother first made efforts herself to revive the child, carrying him into the open air, but as his condition became worse I was sent for, and, arriving half-an-hour after the syncope began, found him as already described. The parents had not observed any convulsion, nor had the child at any time previously suffered from convulsions. After watching him for five or ten minutes, during which time his condition remained unchanged, I ordered mustard to be applied to the nape of the neck and the lips to be moistened with brandy-and-water. Giving the worst prognosis, I left, promising to return within two hours. When I returned I was surprised to find the child conscious and to all appearance well, except that he was somewhat pale and languid. I was told that a few minutes after the mustard was applied consciousness returned. Examination of the ear showed extensive destruction of the membrana tympani, but there were no signs of caries. The urine was free from albumen, and the child has remained well since.

Remarks.—I find a somewhat similar case recorded by Roosa in the *Archives for Otology* (vol. ix., p. 17), where a man, aged forty-five, passed into a state of coma after his ear had been syringed to cleanse it from a chronic purulent discharge. In Roosa's case the coma was equally profound, but does not appear to have lasted beyond a few minutes, though the patient was unable to leave the consulting room for two hours afterwards. Roosa does not offer any explanation of his case, in which no examination of the tympanic membrane was made. Probably such cases are due to a nervous reflex starting either from the terminations of the auditory nerve in the semicircular canals and labyrinth or from the tympanic plexus. I am inclined to the latter view, as to the course of the reflex, on account of the connexion demonstrated by Lockhart Clarke, between the roots of the fifth cerebral, the glosso-pharnygeal, and the vagus.

THE ETIOLOGY OF SKIN DISEASES.

BY F. AUGUSTUS COX, M.B. LOND.,
SURGEON TO THE WESTERN DISPENSARY FOR SKIN DISEASES.

I HAVE read with interest Dr. Frederick Pearse's note on the above subject. To label a particular eruption as "eczema," and, without regard to its causation or manner of development, regard and treat it as a definite pathological entity is, of course, not satisfactory. As regards "eczema," a good many causes have been assigned for it, yet it is not always possible to trace any particular case back to its origin—at any rate, if we exclude those cases caused by external irritants. The nomenclature of skin diseases is to blame for a good deal of the confusion that exists. For example, the term "eczema" itself is a most indefinite and misleading expression. Under it have been included the most varied lesions ranging from a simple erythema to the formation of pustules or scabs. If we could get rid of such a term as eczema, or never employ it without qualification, some progress would have been achieved, and we might hope to be more successful in our attempts to determine in any given case the cause which has been operative.

In the case of acne, several of the assigned causes are often simultaneously present, but it is not always easy to say which is the active one. Great stress has been laid on sexual irritation as a cause, but many authorities deny its influence. A medical man who had seen many cases once remarked to me that he had never seen but one in a married person, and that was in a man living apart from his wife. I cannot, however, corroborate this observation, having many times seen married persons suffering from acne, and one of the worst cases I ever saw was in a young married woman. I had recently under my care a young lady affected with tinea versicolor over the chest. Ordinary antiparasitic remedies were prescribed, and the affection quickly disappeared, but as it did so a well-marked patch of acne punctata took its place. I should, however, hesitate to suggest any causal relation between the two disorders. I should add that the acne punctata soon vanished on using a weak sulphur ointment, combined with a free use of soap and water.

In regard to one cutaneous disorder—psoriasis—mentioned by Dr. Pearse, our knowledge of its etiology is almost *nil*. Excluding heredity, to which it can often be traced, we can often discover nothing. It frequently seems by choice to

attack the most healthy people. As I once heard Mr. Malcolm Morris epigrammatically express it, "It is a disease of health." Most practitioners would admit the truth of this so far as the general health of the patient is concerned. Yet the lesions in psoriasis are well marked and their morbid anatomy accurately known. There is presumably a cause if we could only unravel the tangled web leading to it.

South-street, Park-lane.

CASE OF PUERPERAL PERITONITIS.

By FRANK STURGES, L.R.C.P. LOND., &c.

THE following case seems to present points of sufficient interest to warrant my wish to obtrude it upon the notice of the readers of THE LANCET. I will first give very briefly my daily notes.

Mrs. G——, aged thirty, multipara, a pale and delicate-looking woman, was delivered of a living child on Aug. 22nd at 7 P.M., after a labour that would have been quite normal but for a somewhat prolonged first stage (about ten hours). The placenta was expressed without any difficulty a little later.—Aug. 24th: Slept little, and complains of great abdominal pain. Light tapping with fingers reveals extreme tenderness over hypogastric and both iliac regions. Temperature 99·4°; pulse 80. Has vomited, and feels sick. Ordered milk and lime-water diet, half a grain of opium every four hours, and mustard and linseed poultices continually.—25th: Vomited and retched a good deal since last note. Lochia small in quantity, but very offensive. Peritonitis most acute over the whole abdomen. Temperature 100·6°; pulse 100, feeble. The uterine cavity was washed out with water coloured by iodine tincture. Ordered half a grain of opium every three hours; poultices to be continued; a diet of milk and lime-water, and a little strong beef-tea; and a dessertspoonful of brandy every four hours.—26th: Passed a better night. Has not vomited, and says she is much better. Light palpation still causes pain, but not so severe. Lochia more in quantity and less offensive. Temperature 99·2°; pulse 80, of better volume. Uterus again washed out, and treatment continued.—27th: Had a good night, and is much better. Lochia quite sweet. Light palpation causes little or no pain. Temperature 98·4°; pulse 64, and of fair volume. Diet to be milk and beef-tea; brandy omitted, and half a grain of opium given every six hours. Uterus again washed out. From this period nothing of note occurred, the convalescence being rapid and complete.

Now, this case is most interesting to me, probably largely on account of its gratifying termination. I have always regarded acute peritonitis coming on so soon (about thirty hours) after the commencement of the puerperal period as almost necessarily fatal, and on Aug. 25th the patient was so very ill that I hardly thought she could recover. With regard to the causation, there is much of interest. The woman was living as caretaker in an empty house, a house that had not been properly inhabited for some considerable time. In this house were three waterclosets—one, scarcely ever used, on the same floor as the room in which the patient was confined. And I believe that, although I was informed there was plenty of water and I never detected any drainage smell, the flushing of this closet had been much neglected. This, then, would be a sufficient cause, only there is something else to be told. The nurse who was present at the birth was suffering from an attack of acute tonsillitis, which rendered her barely able to discharge her duties; and when she showed me her throat I was greatly exercised in my mind as to whether I ought not to send her home, and whether, if she stayed, she could convey by any possibility septic poison to my patient. However, she stayed till Aug. 24th, when I was informed, on paying my morning visit, she had gone home, feeling too ill to attend to her work. Thus, for two nights the nurse had slept with the lying-in woman, and some time during the second night the peritonitis came on. And, I might add, the nurse went away, and the patient got better: was it because the cause was removed? And then, lastly, concerning the treatment. I have already told how I treated the case; but the nurse treated it also, and in this way. On the morning of Aug. 24th, before going home she gave the patient, without any authority, six much advertised patent pills. I did not hear of this till the following day, when I was told that Mrs. G—— had had two actions of the bowels causing such intense pain that she twice fainted. Mr. Lawson Tait has, I believe, advocated the treatment of these cases by Epsom salts; and although it would seem to me to require all Mr. Tait's great reputation to put that treatment into practice, I would not take upon myself to say that these pills administered by the nurse had not something to do with the recovery. For they were given early on the 24th; they acted twice in the night; on the morning of the 25th the patient was much worse, but during the day she changed for the better. We must also bear in mind, however, that on the morning of the 25th I injected the uterus with a solution of iodine, and by that time, too, notwithstanding aperient pills, the opium and counter-irritation were beginning to have effect. Should it be my misfortune to have another case of the kind, I shall certainly treat it with iodine irrigation, opium, and counter-irritation, and not with the aforesaid pills or Epsom salts. Still, I have considered it right to record this case in its entirety because of its peculiar and speculative interest, and because of the terribly fatal nature of the disease; and I ask members of the profession to take all the facts into their careful consideration and draw their own conclusions.

Beckenham.

VERY RARE PRESENTATION IN MIDWIFERY.

By W. H. BORHAM, L.R.C.P.E., M.R.C.S., L.M.

ON Sept. 20th, 1887, Mrs. C——, aged thirty-two years, was being attended in her confinement with her sixth child by a midwife. She had been in labour for two days, and the midwife left her for about an hour. On her return she found a loop of the funis, three inches in length, protruding from the vagina, and "something wrong above" in connexion with the head of the child.

The midwife sought for my attendance. Upon examination I found the cord hanging external to the vulva in a loop about the length stated; there was a slight pulsation in it, and it was getting cold. Upon introducing my fingers, I found the palm of the child's left hand was flat and pronated on the side of the child's occiput between it and the mother's sacrum. In the interim of the pains, which were flagging, I at once introduced my hand into the vagina, pushed up the child's hand and head, then gradually insinuated my right hand into the uterus and grasped the left foot, turned the child, and in a few minutes delivered the mother of a female child. It had suspended respiration, but the heart was still pulsating. With the usual treatment of warm bath, &c., the child was restored, and both are now quite well.

During a forty years' experience, and after attending some thousands of cases, I have never met with a similar presentation, nor do I remember reading of such a one by any authority. The fact of the hand resting on the head and the cord lying along the side of the wrist and thumb prevented that pressure upon the cord which would otherwise certainly have cut off the circulation of the blood and killed the child. Speedy version and delivery were necessary to save the child. All the parts of the female pelvis were capacious, and the soft structures amply relaxed. Some authorities state that both feet should be grasped and drawn down together in this operation, but most experienced accoucheurs in this operation, I think, will agree with me when I say that this is more easily said than done. To grasp both feet, which may be widely apart, with a cramped hand in the uterus, where the liquor amnii has escaped, is no easy task to accomplish, especially when one has so little time to secure a living child. It is better to be sure and bring the first grasped foot down, especially in such a case as the above, and I have never had any difficulty in easily delivering in this way. The joints and tissues in the new-born infant are so supple and flexible that no danger need be apprehended if carefully manipulated.

The mother of this child, when she was five months pregnant, fell downstairs, which may have altered the position of the fœtus in utero, and caused this unusual presentation.

Fulham.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The following office-bearers have been elected for the present session:—President: Mr. J. Brindley James. Vice-presidents: Dr. Peter Horrocks, Mr. Thomas Moore. Council: Mr. G. H. Cable, Dr. Ernest Clarke, Mr. Peter Cooper, Dr. W. Collingridge, Dr. Alexander Forsyth, Mr. Frederick Moon, Mr. J. Poland. Treasurer: Dr. Prior Purvis. Secretary: Mr. H. W. Roberts. Librarian: Dr. Ernest Clarke.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

EPITHELIOMA OF TONGUE AND GLANDS; REMOVAL BY KOCHER'S METHOD; PATIENT FED FOR A FORTNIGHT THROUGH A TUBE RETAINED IN THE WOUND; COMPLETE RECOVERY.

(Under the care of Mr. A. E. BARKER.)

THE point to which we would direct special attention in this case is the method employed of feeding the patient after operation. Great advantage was derived from the use of the tube, the patient being well fed, and that without discomfort to himself; whilst, as Mr. Barker points out, no irritation or unnecessary disturbance of the wound was required.

S. W——, aged fifty-eight, was admitted on Aug. 20th, 1886, suffering from extensive epithelioma of the right side of the tongue and of the submaxillary lymphatic glands on the same side. The disease had appeared on the right side of the tongue about five months before admission, and had rapidly extended to the pillar of the fauces. When first seen there were enlarged glands beneath the chin and over the carotid vessels below the angle of the jaw. The suffering was very great and the difficulty of taking food extreme. The patient had come over from America to obtain relief.

In view of the extent of the disease, and the implication of the glands, Kocher's method of operating was selected as giving freer access to the latter and control over the lingual artery before section of the tongue; it also offered an opportunity of putting in practice a means of feeding the patient subsequently during the healing of the wound, which it had occurred to Mr. Barker might possess many advantages.

The mouth having been constantly cleansed with chlorate of potash lotion from the day of admission to the 25th, the face and neck were shaved and thoroughly washed with carbolic lotion. An incision was then made from a point just below the lobe of the right ear to the body of the hyoid bone, then horizontally forwards along the body of the latter for three-quarters of an inch, and then up to the symphysis of the jaw. The flap of skin thus marked out was now dissected up towards the jaw and the whole submaxillary space exposed. This was then completely cleared out of all glandular structures, an infiltrated mass being also removed from over the carotid vessels, and also from beneath the chin. In this dissection the facial artery and vein were divided and doubly ligatured. When the digastric space had been completely cleared of all secondary infiltration of glands the lingual artery was ligatured behind the hyoglossus muscle. Then Kocher's method was so far modified that the tongue was attacked from within the mouth. The latter being held open with a gag, the organ was secured with a cord passed through its tip and held over to the left. It was then detached from the jaw all round by means of scissors, which were made to cut straight down to the hyoid bone at once. When well isolated, it was divided with scissors obliquely across at its root from left to right, the left lingual artery being at once caught up with Wells' forceps. During this part of the operation but little blood was lost and no trouble was experienced. The first wound in the neck, provisionally closed with a carbolised sponge, was now open to the mouth and pharynx, and there was thus free access to the whole area of operation. This was then carefully cleaned, dried, and dusted with iodoform, and the two ends of the incision were stitched, the middle being left unclosed for drainage. Through this part of the wound a piece of rubber tubing about a third of an inch in thickness and eighteen inches long was introduced and passed well down the œsophagus, the other end being secured to the right ear. The neck around the edges of the wound was now dusted with iodoform and carefully padded with salicylic wool, a great mass of ordinary wool being packed over all round the neck to secure the head from movement, which end was fully attained when the mass of wool was firmly bandaged. The rubber feeding tube projected above the wool at the ear.

The patient suffered but little shock from the operation. In the evening a quantity of beef-tea was poured into the stomach through the rubber tube, without disturbing the patient or the wound in the smallest degree. This method of feeding was continued every four hours or so for sixteen days, and was a great improvement on the ordinary methods. The dressing was left undisturbed for two days, and was then replaced by fresh packing as before, the skin wound healing by first intention, except at the spot where the tube lay. The latter was left *in situ* until the floor of the mouth was nearly healed, and was only removed on Sept. 9th. Cicatrisation was rapid and unaccompanied by any trouble; the temperature remained normal throughout, and the patient was very cheerful and rapidly regained strength from the regular feeding. The latter was carried out in the simplest manner by introducing the point of a funnel into the tube lying outside the dressings, and through this pouring in beef-tea, milk, eggs, &c. The patient had not to move, and the mouth was left undisturbed.

Remarks.—The chief points of interest in this case are, first, the extent of the operation. Not only was the tongue removed with the structures of the floor of the mouth on the right side, but all the glands of the submaxillary space from the chin to the lobe of the ear. And yet there was but little shock—a fact due probably to the ease with which bleeding can be arrested in operating from without. The next point to be observed is that by operating as above it was possible to keep the wound in the mouth absolutely clean from beginning to end, and at the same time to maintain the parts in a state of perfect rest. The patient had nothing to say to his own feeding; in fact, it could be done while he was in any position without disturbing him. No food passed through the mouth, consequently the wound in the latter could be treated like any other wound, and did not need even to be washed out receiving only a puff of iodoform from time to time. As there was no swallowing, there was no pain. Mr. Barker was much struck with the superiority of this method of feeding over that by enema or nasal tube, and has adopted it since in other similar cases with equally satisfactory results.

The patient was seen some months later, with no trace of recurrence, looking very well, and very much pleased with what had been done for him.

OLDHAM INFIRMARY.

CASE OF PSEUDO-HYPERTROPHIC MUSCULAR PARALYSIS IN ITS FIRST STAGE, OR PROGRESSIVE MULTIPLE NEURITIS; RECOVERY.

(Under the care of Mr. FAWSITT.)

FOR the following notes we are indebted to Mr. John J. Weaver, late house surgeon.

P. B——, aged twelve years, a rope-maker (i.e., engaged in making or repairing ropes), was admitted on Oct. 1st, 1886. About five weeks before admission he noticed some numbness or "cramp" in the thumbs and fingers of both hands, especially affecting him in the early morning, and he was in the habit of calling his mother up about 5 o'clock in the morning to rub his hands on account of the pain. The mother would rub them for about ten minutes or so at a time. She thought the pain had something to do with the boy putting his hands into water at his work. This affection of the fingers lasted on and off for about a fortnight, and was then followed by the pains in the calves of the legs described below. The mother noticed that about this time the boy seemed less inclined than usual to run about, but preferred to sit down and read to her instead. Three weeks before admission the patient noticed a "dull" pain in the calves of his legs, which came on about four times a day, and lasted about ten minutes at a time. Less than a week after this pain in the calves commenced, the boy fell one day while at work, and then found that he could not get up again. He crawled to a stake in the ground, and by means of that raised himself up. This fall was the first symptom that caused the mother to seek medical advice, and for which she brought the boy to the infirmary. About a week after the fall the patient stated that he had on one occasion some aching pain at the bottom of the back, lasting about

fifteen minutes; no recurrence since. For about three weeks before admission he was in the habit of wetting his bed now and then—not an old habit with him. It occurred also once or twice after admission during the first week or so, but ceased altogether afterwards. Previously to his present illness he has always had very good health, and been able to run about as well as other boys. Family history: Father and mother living and healthy; one sister, aged eighteen, healthy; one brother, aged sixteen, consumptive. Both sister and brother were seen at the infirmary. No history whatever of any previous similar case in the family. Mother's sister's children in Australia; none affected.

On admission the patient was a bright, intelligent, and healthy-looking boy. When put on all fours he was quite unable to get up. His efforts to get up were characteristically those of pseudo-hypertrophic paralysis. When asked to stoop and pick up a pin from the floor he raised himself with great difficulty from the stooping position by placing his left hand just above his left knee, and so pushing himself up. He could get up easily from the sitting position, as from a chair, to the standing position. Gait somewhat waddling. He raised his knees up rather higher than natural, and put his feet down again forcibly; easily tumbled over on turning round, or on the least push. He was quite unable to get up the stairs leading to the ward, and had to be carried. He could walk about the ward, but was easily tired. When standing the legs were held apart and were unsteady; there was slight rocking of the body backwards and forwards, and he seemed unable to stand perfectly still. Decided increase in lumbar curve, and abdomen protuberant. A plumb-line let fall from the most prominent dorsal spines easily escaped the sacrum. Calves of legs hard, the hardness being very noticeable even when the patient was lying on his face on the bed. Calf muscles apparently not enlarged, though they compared favourably in development with the rest of the muscular system. Measurement of calves (greatest diameter): right calf 10½ in., left calf 10¾ in. No apparent enlargement in muscles of thigh or in the infra-spinati. General muscular system poorly developed. Pectoral muscles much wasted, especially the lower or sterno-costal portions. The latissimi dorsi muscles could not be brought into view. No wasting of muscles of hands or thumbs; no weakness of hands out of proportion to general muscular development. Muscles of face unaffected. Sensation everywhere unaffected. Intellect very good. Knee jerk in both legs absolutely lost. No ankle clonus.

Oct 4th.—Electrical reactions: Patient flinches so much with even the weakest currents that it is very difficult to be sure of the results. The gluteal muscles give with the faradic current apparently diminished reaction; with the galvanic current the reaction seemed at first apparently increased, afterwards uncertain. The reactions of the calf muscles to both forms of electricity are greatly diminished.

5th.—Patient begins to walk better. Can now get up from the stooping position after picking something off the floor with difficulty, but without placing his hand upon his knee. He cannot get up from all-fours.

6th.—The boy can to-day for the first time get up from the all-fours position by placing his left hand upon his left knee.

7th.—Patient vomited yesterday, morning and afternoon, and also this morning. Constipated; ordered aperient. No recurrence of vomiting.

9th.—Patient can get up from the stooping position without the use of his hand upon his knee. In getting up from the all-fours position, still uses his left hand upon his left knee; walking much improved. He appears to feel both forms of electricity more on the left side of the body than the right.

16th.—Patient was allowed this afternoon to go out into the infirmary yard, but ran away to his home, which is only a few streets away from the infirmary. He was, however, brought back by his mother in the evening. He was a good deal distressed at being brought back, and his walking was much worse. He was quite unable to get up the stairs to the ward, but had to be assisted by someone supporting him on either side.

Nov. 6th.—Dr. Ross, having kindly promised to see the case, the boy was taken over to Manchester. In getting into the railway carriage, the step being rather high, he placed his left hand upon his left knee to push himself up. Dr. Ross pointed out the very extensive fibrillary contractions in the muscles of the back, legs, and triceps muscles of the arms; also the general muscular wasting. Grasp of hand, fair strength. Patient, sitting and resting heel upon ground, is able to raise toes from the floor. Dr. Ross apparently easily obtained electrical reactions in the muscles of the back by faradism (even with dry electrodes), but with galvanism the reactions could not be made out on account of the patient's flinching. This was the only occasion on which Dr. Ross saw the case, and, as will be seen from the notes, the boy's condition by this time had very much improved. From the symptoms as they then existed, Dr. Ross was therefore unable to confirm the diagnosis of pseudo-hypertrophic paralysis. One note, made at the time, but which until now on account of its uncertainty has been omitted, is to the effect that in grasping anything "the dorsum of the hand was drawn slightly towards the extensor surface of the forearm in the act, one hand (left?) more so than the other." On repeated trials it was very uncertain, and therefore it was afterwards omitted. It proves, however, that there was no loss of power of extension of the wrist.

Measurement of calves (greatest diameter).

		Right leg.	Left leg.	Boy's weight.
Calves decreasing in size.	Oct. 1st*	10½ in.	10½ in.	—
	„ 11th	10½ „	10½ „	—
	„ 13th	—	—	65½ lb.
	„ 17th	10 „	10½ „	65½ „
Calves increasing in size.	Nov. 6th	10 „	10½ „	66½ „
	„ 18th	10½ „	10½ „	67 „
	Dec. 10th	10½ „	10½ „	67½ „
	Jan. 3rd	10½ „	10½ „	68 „
	„ 7th†	—	—	—
	„ 17th	11 „	11 „	71½ „

* Date of admission. † Patient discharged.

It will be noticed that at first there is a gradual decrease in size of both calves, followed later by a gradual increase in size, accompanied then by a gradual increase in the patient's weight.

Treatment.—On the assumption that the case was one of pseudo-hypertrophic paralysis, the treatment adopted was that recommended by Duchenne for the first stage of the disease—viz., faradisation and shampooing. The boy was therefore shampooed daily for about twenty minutes at a time, the muscles being thoroughly well rubbed and squeezed, and electricity, sometimes one form, and sometimes the other, but most frequently the faradic current (being much better borne), was applied directly to the muscles. In addition, a mixture containing syrupus ferri phosph. comp., and five-minim doses of liq. strychniæ and liq. arsenicalis was prescribed. The boy was kept in bed as little as possible and encouraged to move about.

Jan. 7th, 1887.—The patient was discharged from the infirmary. With the exception of the total absence of knee jerk, he appeared to be in perfect health. His gait was natural; he could get up from all-fours naturally and without difficulty, and could again run about perfectly well. He was seen again on Jan. 17th.

Feb. 17th.—Patient was seen at the infirmary. The improvement is still maintained. The knee jerk is still absent. The patient's general muscular development is much improved, especially the condition of the pectoral muscles. The latissimi dorsi muscles also can now be made out. The calf muscles have still further increased in size, both calves now measuring 11½ in.

July 11th.—This was the last occasion on which Mr. Fawsitt saw the boy, six months after his discharge from the infirmary. The only trace of any disease that could then be found was the fact of the knee jerk being still absent. But on this occasion for the first time, though he had tried the method at all previous examinations, a very slight knee jerk was obtained by getting the patient at the same time to interlock his fingers and pull upon them (Jendrassik's method). The jerk was very slight on either side, but slightly more marked on the left side than on the right. The calves now measured 12 in. The boy got up from all-fours position with perfect ease.

In addition to the above account, one or two facts which cannot so well be put under dates may be added. First, as to the patient's manner of getting upstairs. On admission the boy could not get upstairs at all, not even with the help of the banisters. As his condition improved he was able to

get up by pulling himself up by both hands, the hand nearest the banister being placed on the top of the banister and the other on the banister rails. At the time of his discharge from the infirmary he was able to get upstairs without touching the banisters. The boy's intelligence was very good, as shown by his clear answers to questions, and by the fact that soon after his admission he proved himself the best draughts player in the ward.

Remarks by Mr. WEAVER.—I am fully aware of the difficulty of diagnosis in this interesting case. Undoubtedly at first sight the case appeared from the collection of symptoms and their well-marked nature to be a case of pseudo-hypertrophic paralysis, and as such I believe it was certainly regarded at that time by all who saw the boy. On different occasions soon after his admission to the infirmary this patient was seen by each member of the medical staff, and also by one or two occasional medical visitors to the infirmary, and although the absence of any marked enlargement of the calves or other muscles was noted, the diagnosis of pseudo-hypertrophic paralysis was on no occasion disputed. When, however, later, it was found that the boy's calves were not increasing in size, but rather decreasing, and that at the same time his general condition as to walking, getting up from the floor, &c., was rapidly improving, in my own mind at least a doubt arose as to the diagnosis. At this time, however, I was inclined, rightly or wrongly, to regard the decrease in size of the calves as possibly due to the smaller use of the muscles, resulting from the change of the boy's circumstances, involving the confinement in a hospital ward, and the additional necessity of the boy keeping his bed at times for the purpose of treatment by shampooing and electricity. I was also aware that almost every conceivable condition of the muscles as to size had been recorded in pseudo-hypertrophic paralysis, and that even, as Dr. Gowers states, "the absence of muscular enlargement is of little significance."[1]

The actual size of the calves of this patient is, I think, worthy of note, though I do not wish to lay much stress upon this point. In this boy of twelve years, in whom the general muscular system was poorly developed, as noted by myself and afterwards by Dr. Ross, the right and left calves measured respectively 10¼ in. and 10⅜ in. From a few comparative measurements I have made of calves of other patients about the same age I believe this patient's calves to have been rather above the average size. They may be compared also with a case of pseudo-hypertrophic paralysis recorded by Dr. Gowers,[2] in which in a boy aged thirteen years and a half the calves measured respectively 10½ in. and 10⅝ in., and are thus described—"Their undue size and firmness were very distinct"; and a case recorded by Mr. W. Adams, in which in a boy aged fifteen the calves are described as "large and prominent, each 9½ in. in circumference."[3] But regarding the muscles as not markedly enlarged, the case still seemed to me to correspond exactly in all its symptoms with the first stage of pseudo-hypertrophic paralysis, in which, as described by Duchenne, there is loss of strength without muscular hypertrophy, a stage of the disease also recognised by Charcot as "the first clinical stage noticed by all observers, a period in which the only appreciable symptoms consist in a more or less marked weakness of certain muscles which do not as yet exhibit any apparent hypertrophy, and which even sometimes show themselves manifestly atrophied."[4] Lately I have been able to compare the case with two cases of recovery from pseudo-hypertrophic paralysis recorded by Duchenne in the *Archives Générales de Médecine*, 1868. As considerable doubt has been thrown by most authorities on the nature of these cases, I may be allowed to point out that the two cases of recovery were respectively the ninth and thirteenth cases of a series of thirteen cases of hypertrophic paralysis, upon which Duchenne founded an exhaustive and accurate description of the disease as it is known at the present time. The description was published in 1868. Duchenne had met with his first case of pseudo-hypertrophic paralysis in 1858; his first case of recovery (the ninth of the series) occurred in 1863; his second case of recovery (the last of the series) in 1867. Of the first of these two cases, that of a boy aged seven years and a half, though the details are not fully reported, Duchenne says: "When I was first called to this young patient I made out the whole of the symptoms characteristic of pseudo-hypertrophic paralysis, but the apparent hypertrophy is slight and limited to the gastrocnemii; the lordosis is moderate (the father says it has increased)."[5] The second case of recovery, the case of a girl aged six, is fully reported as having all the characteristic symptoms of pseudo-hypertrophic paralysis, including separation of the legs while standing and walking, throwing back of the body (lordosis), waddling gait, the characteristic method of getting up from all-fours by putting the hands on the knees and mounting up the thighs.[6] In this case also the size of the muscles of the lower limbs is reported as "far from attaining the ordinary proportions of a more advanced stage of the disease," but as "contrasting with the thinness of the upper extremities." The treatment of this case is given in detail further on in the articles (p. 578). The different phases of this last case were evidently followed up closely by Duchenne, as he himself states.[7] It seems therefore impossible, whatever may have been the nature of these cases, to have any doubt as to the symptoms. The close resemblance of these two cases and the case I have reported I think is clear.

After the patient had left the infirmary I submitted the notes of the case to Dr. Gowers, and he expressed the opinion that the case was "certainly one of the muscular disease of which pseudo-hypertrophic paralysis and idiopathic atrophy are varieties. To which of these varieties your case belongs is a question to which different authorities might give different answers..... I should myself place it with pseudo-hypertrophic paralysis. The condition of the latissimi and pectorales, so far as my experience goes, is a conclusive proof of the nature of the malady." To account for the rapid onset and rapid improvement, Dr. Gowers is of opinion that in this case there was "a supra-added functional impairment of the nervous system which was manifested most by the muscles that were weakest, and so produced the semblance of a more advanced stage of the disease."

Dr. Ross, on the other hand, regards the case, "with cases of the kind reported as occurring in children after measles, chorea, scarlet fever, rheumatism, diphtheria, and other diseases, as a case of progressive multiple neuritis." Dr. Ross also considers that the cases of chronic poliomyelitis occurring in infants, as described by Dr. Bennett, belong to the same group.

If this case is one of progressive multiple neuritis, is it not possible to go a step further, and regard pseudo-hypertrophic paralysis itself as a progressive multiple neuritis? May not the pathological change in the muscles in pseudo-hypertrophic paralysis be regarded as a special manifestation of the later stages of the disease, and dependent perhaps, as Duchenne, after discarding the spinal origin of the disease, held, on a lesion of the vaso-motor system?[8] The frequent occurrence of vaso-motor changes in multiple neuritis has been pointed out by Dr. Buzzard;[9] and that a change in the muscles corresponding anatomically with the changes observed in pseudo-hypertrophic paralysis may follow a nerve lesion is also made clear by a case recorded by Ilitzig and quoted by Dr. Gowers, in which, after an "injury to the nerves of the arm near the shoulder-joint, a slow increase in the size of the arm resulted, and the condition of the muscles was found, by harpoon examination, to be the same as in pseudo-hypertrophic paralysis."[10]

[1] Monograph on Pseudo-hypertrophic Paralysis, by Dr. Gowers, p. 50.
[2] Ibid., p. 15.
[3] Note by Dr. Poore in his Translation of Selections of Duchenne's Works, New Sydenham Society, 1883, p. 189.
[4] Charcot's Lectures on Diseases of the Nervous System, New Sydenham Society Translation, 1881, p. 383.
[5] Archiv. Gén. de Méd., 1868, p. 17. [6] Ibid., p. 23. [7] Ibid., p. 577.
[8] Ibid., p. 569. [9] THE LANCET, Nov. 28th, 1885.
[10] Pseudo-hypertrophic Paralysis, by Dr. Gowers, p. 45.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.—The office-bearers of this Society for the session 1887-88 were elected at a meeting of the Society on the 7th inst., and are as follows:—President: Professor T. McCall Anderson. Vice-Presidents: Dr. D. C. M'Vail, Dr. Alex Patterson, Dr. Jos. Coats, Dr. Jas. Stirton. Council: Dr. S. Gammell, Dr. J. W. Anderson, Mr. A. E. Maylard, Dr. D. N. Knox, Dr. Alex. Robertson, Dr. Wm. M'Ewen, Dr. Edward Macmillan, Dr. A. Wallace. Treasurer: Dr. Hugh Thomson. Secretaries of Sections: Dr. Geo. S. Middleton, Dr. John Barlow, Dr. T. K. Dalziel, Dr. T. F. Gilmour. General Secretary: Dr. Wm. G. Dun.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, Oct. 5th, W. F. Cleveland (Vice-President) in the chair.

A gracious acknowledgment of the address from the Society to the Queen, on the occasion of Her Majesty attaining the fiftieth year of her reign, was received from the Home Secretary.

Mr. BUTLER-SMYTHE showed a Fibro-cystic Tumour of the Uterus, together with the Uterus and Ovaries, which he had removed that afternoon.

Mr. ARBUTHNOT LANE read a paper entitled "What are the Chief Factors which determine the Differences which exist in the Form of the Male and Female Pelves?" The author criticised the supposition that many, if not all, of the differences which exist in the form of the male and female pelves are due to force exerted by the femora and sacrum upon the innominate bones. He considered that the conditions of the thorax and pelvis are exactly analogous in the two sexes, and described in detail the manner in which the female thorax differs as a whole and in its constituent parts from the male thorax. He thought that the factor which determines the altered form of the female thorax from the male thorax (which he regarded as the original type) is the additional function performed by the former—namely, that of accommodating the fœtus during the later months of pregnancy. In the case of the pelvis, that of the female performs one function in addition to those performed by the male pelvis. That additional function is the support and transmission of the fœtus, and he regarded this as the sole factor which determines the variations in form in the two sexes. He thought that there is a fallacy in arguing from the manner in which certain forces produce changes in the pelves of diseased female subjects during the lifetime of a single individual, that the same forces acting upon a healthy female subject determine this peculiarity in the form of the pelvis, and that, should these forces be absent, the characteristic peculiarities do not result. He attempted to prove this point by applying the same argument to the analogous condition of the female thorax. He discussed the two most common variations in the form of the male pelvis and their probable cause, and showed that these variations do not occur in the female subject. The pressure exerted by the fœtus, represented as a developmental factor, is the cause, he considered, which prevents the occurrence of such variations in the female subject. He then alluded to pressure changes due to carrying loads upon or in front of the trunk, and from premisses gathered from these several points came to the conclusion that the sole determining factor of the variations in the form of the male and female pelves is, as in the case of the thorax, the force or pressure exerted by the fœtus.—Dr. HERMAN agreed with Mr. Lane in holding that the form of the pelvis was due to inheritance—i.e., to influences acting on many generations of ancestors—more than to forces acting during the life of an individual. But he thought the way in which the shape of the pelvis was modified in transmission through many generations was mainly this—that women with well-shaped pelves were able to bear large strong children, likely to survive and to inherit and transmit that type of pelvis; while women with small pelves produced either stillborn children or small weak children, not so likely to survive, and so a stock with small pelves tended to become few. If Dr. Herman interpreted literally Mr. Lane's view of the way in which the shape of the pelvis was modified—viz., directly by the pressure of the head during labour—he could not agree with him. The head only pressed on the bones bounding the pelvic cavity during the second stage of labour. This stage on the average lasted less than two hours. Supposing the individual to have ten children (which was the largest estimate of the average), this made twenty hours' pressure during the whole of life, and usually no part of this pressure was exerted till after ossification was complete. He could not attribute any appreciable influence on the shape of the pelvis to pressure so brief and intermittent, exerted on hard, fully ossified bones.—Dr. PLAYFAIR said that Mr. Lane seemed to assume that pressure was generally described by authors on midwifery as determining the shape and dimensions of the female pelvis. He could recollect no modern text-book in which such a reason was given, the generally received explanation being that the increased size of the female pelvis was caused by the fact of the reproductive organs being contained within the pelvic cavity in women, and not external to it as in the male. It seemed very probable that a process of evolution might in time produce pelvic changes from constant factors, but not from accidental and occasional circumstances such as the presence of a fœtus in utero.—Dr. GALABIN had never understood that the mechanical effects of the body weight and muscular action were supposed to bring about the characters special to the female pelvis, but that the peculiarities of the female had been ascribed to the forces of development or the presence of the genital organs in the pelvis. If any peculiarity in an individual of one sex tended to be transmitted to the same sex more than another, he thought it might be capable of proof in the breeding of animals. Dr. Galabin thought that any special character, as size, colour, or strength, was transmitted to sons and daughters equally. The principle would be one of great interest as regards the future of our race if it were established. Strong-minded women were wont to ascribe any slight inferiority of woman's intellect which others might admit to the fact that women have been kept in a kind of slavery for many generations. He had always thought this was a fallacious argument, and that if women had in any way suffered, their sons would be the losers as well as their daughters. If Mr. Lane's principle were true, the case was altogether different; and if women exercised sufficiently their intellects and their bodily powers, they might in course of generations not only wipe out any slight mental inferiority, but come to equal or even surpass the men, both in average stature and muscular strength.—Dr. MATTHEWS DUNCAN had greatly admired Mr. Lane's former papers on the skeleton, and took special interest in the explanation of the changes of the pelvic joints at the end of pregnancy by mechanical influences.—Dr. CHAMPNEYS wished Mr. Lane to name any eminent obstetric writers who assigned sexual peculiarities to causes common to the sexes. He had never met with such a statement. The effect of pressure on respiration cannot begin before the sixth month, which leaves three months in each pregnancy, or thirty months in ten pregnancies, and against this we have to put the remainder of the whole of a lifetime of, say, sixty years. The production of alterations in the skeleton during pregnancy was one thing, and the alteration of the skeleton by laborious occupations was quite another thing.—Mr. LANE, in reply, was sorry that it would be impossible to attempt to answer offhand the many questions and criticisms, which would necessitate a complex and lengthy reply, but preferred to base his case on the material contained in the paper.

Dr. J. MATTHEWS DUNCAN then read a paper on Tonic Uterine Contraction without Completeness of Retraction, in which he called attention to the occurrence of a rigid, spastic condition of the uterus, especially just after delivery, without complete retraction and while the uterus has no contents opposing complete retraction or closing. In this state the hard uterus has a globose cavity. He more particularly called attention to the occurrence of hæmorrhage from the placental site while the uterus is in this state of firm spastic contraction with incomplete retraction, and mentioned cases. He regarded this hitherto unknown or unrecognised condition as probably affording an explanation of the well-known difference of opinion among obstetric authorities, some asserting the occasional occurrence of hæmorrhage after delivery from a hard contracted uterus, some denying it. A similar condition, he believed, occurs very rarely in the unimpregnated uterus.—Dr. HERMAN had published a case in THE LANCET, 1882, p. 1110, to illustrate the practice of injection of fluid into a vein. This was a case of secondary hæmorrhage coming on nine days after delivery. When seen by Dr. Herman the uterine cavity was globose and large enough to contain a fœtal head, and its walls were hard and rigid. The interior was swabbed with solution of perchloride of iron, and this was followed by thorough contraction of the uterus and arrest of hæmorrhage.—Dr. HORROCKS asked if the cervix as well as the fundus was affected by the tonic contraction, because, in regard to cavities such as the uterine and vesical, when the detrusor contracted the sphincter dilated. In Dr. Duncan's case, though the contraction of the uterus was tonic, it was incomplete, leaving an actual cavity. He mentioned a case in his own practice where bleeding came on ten days after labour. The fundus was contracted and hard, and yet the

cavity was not closed.—Dr. GALABIN was specially interested in hearing this paper, because he had thought that in a former paper Dr. Duncan had not distinguished a sufficient number of conditions in which the uterine wall might possibly be. He had understood him to identify that state of continuous action or tetany of the uterus with retraction. Dr. Galabin considered it was quite different, and more analogous to the post-partum condition now described. Retraction was a normal sequence of contraction. Continuous action was abnormal, and might be even antagonistic to retraction, for after such continuous action the uterus was liable to post-partum hæmorrhage. He remembered a case of cancer of the whole cervix, in which the uterus passed into a state of continuous action without any rhythmical pains having occurred, and the pulse became accelerated as in prolonged labour. Cæsarean section was performed. The uterus did not retract. Hæmorrhage took place from the placental site, and was only stopped by perchloride of iron. He thought such a condition might have a distinct analogy to rigor mortis. In rigor mortis a muscle was rigid as if strongly contracted, but if the tendons were divided the muscle did not retract in the least. The condition was really one of stiffening.—Dr. CLEVELAND said he had been sometimes puzzled to account for bleeding after natural labour where the uterus seemed of natural size and contracted, but as these cases occurred in delicate women he attributed them to the effects of a hæmorrhagic diathesis. He was convinced that in earlier experience his anxiety to remove clots from the uterus may have been carried too far. He now believed that where bleeding resulted from imperfect coagulation it was necessary for a clot of some size to remain within the uterus.—Dr. CHAMPNEYS thought that these cases threw some light on the vexed question of the action of ergot, which in some cases seemed to produce tetanus of the uterus without reducing its size or producing retraction.

Dr. JOHN PHILLIPS read a paper on a case of Pregnancy complicated by Secondary Hepatic Cancer. The patient, aged forty, mother of nine children, was operated upon in November, 1883, for scirrhus of the right mamma. Six months afterwards she was seen by the author for considerable pain in her right side; she was then six months pregnant. The pain increased in spite of all remedies, and her condition became so grave that after consultation induction of labour was performed. An easy labour followed, and, on the uterine tumour lessening, the liver was found enlarged and covered with umbilicated bosses, probably of a malignant nature. Jaundice and ascites appeared, and she died comatose three days after her confinement. The author made a few remarks as to the treatment in these cases, confining his attention more particularly to the rectitude of induction of premature labour. He also quoted one other case of a similar character.—Dr. HERMAN had read a paper before the Society[1] on the complication of pregnancy with cancer of the genital canal. In that paper he had discussed the influence of pregnancy on cancer of the genital organs, and had said that from the greatly increased blood supply to the breast and uterus during pregnancy we should expect that cancer of those parts would grow quicker if the patient became pregnant, and he had quoted a case which showed that this was so. A colleague had since communicated to him another case which showed the same thing. Dr. Phillips had referred to authors who were of opinion that pregnancy retarded or suspended the growth of mammary cancer. Dr. Herman believed this was an opinion not supported by observation. He had shown that in cancer of the uterus pregnancy frequently ended in the birth of a decomposed fœtus due to the cancerous cachexia causing the intra-uterine death of the child. This was a strong reason for bringing on labour prematurely as Dr. Phillips had done. Dr. Phillips had spoken of Cæsarean section being dangerous for the child. He doubtless based this opinion on the fact that the statistics of this operation showed a high infantile mortality. Dr. Herman thought statistics were here misleading. The risk which the child incurred in Cæsarean section was almost nothing, and the high death-rate of the children arose from such circumstances as too late performance of the operation, want of attention to the child at the time of operation, &c. If the operation were done when the child was alive, and with proper precautions for its safety, there was no reason why its life should be lost.—Dr. JOHN PHILLIPS, in reply, thought that induction of premature labour was preferable to Cæsarean section.

[1] Trans., vol. xx.

Dr. JOHN PHILLIPS also read a case of Hæmatocele successfully treated by Operation. A young married woman was attacked during menstruation with rheumatic symptoms. There was an aortic systolic murmur. Metrorrhagia continued for a month. A tumour the size of a Tangerine orange was found in Douglas's pouch, and after seven days a large swelling had formed in the left broad ligament, pushing up the uterus to the right, and producing a considerable abdominal swelling. The tumour descended towards the rectum, and in consequence of the precarious condition of the patient aspiration was performed, with no result. The next day the cyst was opened under ether per vaginam with a Pacquelin's cautery, and a large amount of blood clot let out. A Keith's ovarian drainage tube was inserted. The tumour rapidly subsided, and the patient made a good recovery.—Dr. GALABIN thought the case of interest as bearing upon the question when vaginal section and when abdominal section should be chosen if it became necessary to operate on a hæmatocele. He had never intentionally opened a hæmatocele, but had twice made an exploratory abdominal section with good result in cases which turned out to be hæmatocele, not dependent on extra-uterine fœtation. In both cases there was an elastic tumour reaching to the umbilicus. In both the peritoneal cavity was washed out with hot water, the contents of the hæmatocele having in one of them been in an intensely fetid condition. In one of these cases double pyosalpinx was found and removed, and the advantage of abdominal section was its allowing the removal of sources of mischief.—Dr. HERMAN thought that in cases in which the formation of hæmatocele was followed by gradually increasing pyrexia, the practice which he followed—viz., to let out the blood—was the right one. The majority of cases of hæmatocele got quite well under expectant treatment.—Dr. AMAND ROUTH thought Dr. Phillips' practice was the correct one. An incision into the tumour per vaginam was less dangerous than an abdominal section, and in the former the peritoneal cavity was not opened, as the bulging downwards of Douglas's pouch proved that adhesive peritonitis had closed this above.—Dr. CHAMPNEYS said that, where it was necessary to open a hæmatocele, it was certainly best to open it freely and drain and use antiseptic precautions. Much of the bad results in the past were, he thought, due to aspiration without free opening and drainage, septic matters being introduced into the sac without free escape.

MEDICAL OFFICERS OF SCHOOLS ASSOCIATION.

A GENERAL meeting of the Association was held at the rooms of the Medical Society on Thursday, October 6th. The chair was occupied by the President, W. S. Savory, Esq., F.R.S. The Council reported that Mr. Charles Paget's paper on School Sanatoria had been printed and distributed to members, further copies being obtainable from the publishers, Messrs. Churchill, at one shilling each. It was also stated that the Council intended to bring before a future meeting of the Association a code of suggestions as to the construction and maintenance of school infirmaries and sanatoria.

Dr. Hunter Barron, medical officer to Christ's College, Finchley, and Dr. R. P. Smith, medical officer to King Edward's School and assistant medical officer to Bethlehem, were elected members of the Association.

A discussion on "Some points in the Construction and Maintenance of School Sanatoria" was then opened by Dr. Shelly, medical officer of Haileybury, who deprecated the confusion arising from the common employment, as interchangeable and synonymous, of the terms "infirmary" (which should stand for the building in which ordinary non-infectious illness and accidents only were treated) and "sanatorium" (which, in default of a better substitute being invented, might be used to indicate the building reserved for the treatment of cases of infectious illness only). The desirability of providing sanatorium accommodation in all cases, the proportion which the accommodation for patients and nurses should bear to the size of each school, the provision to be made for treating school servants in sanatoria, and several other points connected with the construction and maintenance of such buildings, were brought before the meeting, and provoked a full discussion. Any members who have not received their copies of Dr. Paget's paper are requested to communicate with Dr. Alder Smith, Christ's Hospital.

CAMBRIDGE MEDICAL SOCIETY.

A MEETING of the above Society was held on the 8th of July, Mr. E. Carver, F.R.C.S., President, being in the chair.

Supernumerary Tooth.—Mr. CARVER exhibited a photograph of a child, aged six years and a half, showing a tooth growing from the right lower eyelid. Through the kindness of Mr. A. W. Stocks he was able to give the following history of the case. The patient, W. H——, was under the care of Mr. A. Young in the Salford Hospital, and "when born had a small excrescence on the lower lid of the right eye. This increased in size until he was about four years and a half old, when there appeared on the outer side a small white spot, which was found to be hard, and gradually the crown of a tooth (canine) was protuded until the whole tooth obtruded. In this condition it remained until removed. The fang of the tooth is somewhat bulbous. The number of deciduous teeth is perfect, and he has cut the upper and lower middle incisor teeth." Mr. Carver remarked that the number of milk teeth being perfect, this tooth could not be looked upon as a canine of the temporary set in an abnormal position, that its form and imperfect development pointed rather to its being a supernumerary tooth. That it was not uncommon to meet with these supernumeraries during the first and second dentition, particularly in the upper jaw, either within or without the dental arch more frequently in the latter situation—e.g., in the nasal fossa,—and occurring as they often do in the region of the incisors, some have looked upon their appearance as a return to the normal mammalian type of six incisors. He alluded to the small size of the superior maxilla in early life, and that with a full complement of milk teeth a supernumerary tooth might be developed at some distance from the dental arch; but the position of the tooth under consideration—i.e., in the lower eyelid—was not so easy of explanation. After these remarks, Mr. Carver invited Dr. Cunningham to favour the meeting with his views on this interesting case.—Dr. CUNNINGHAM said supernumerary teeth may be divided into two groups—those that may be ranked with one or another of the members of the dental series, and those which differ in form from the latter, called the conical teeth. Those belonging to the first group are usually incisors or bicuspids. An extra canine tooth is a very uncommon occurrence. Heider records a remarkable case where a woman, after losing by extraction a well-developed canine, erupted in three months a small tooth, the size of a rice kernel, with its extremity covered with enamel. After the removal of this first supernumerary, a second and finally a third appeared at similar intervals. The second group resemble the canine teeth in form, though there is no danger of confounding the two. The crown with the invariable single root is conical, and in rare cases the crown may be pyramidally three-sided. Their locality is variable—either in the arch, or more generally within the arch. Their eruption takes place during the first or second dentition, or in the interval between the two. Sir John Tomes records two cases in children of five years. In most cases they belong to the second dentition and are permanent. The question as to whether they are secondary developments from the germs of milk or permanent teeth may be answered negatively, inasmuch as they differ in shape from normal teeth. Reasoning from this latter point of view, it is more probable that they are independent dental germs, products of the superficial mucous membrane, and do not originate, like the permanent teeth, from secondary germs. The upper canine teeth, more frequently than any others, are the subjects of total displacement.

Uniocular Triplopia.—Mr. WHERRY said that this was the case of a patient who, under certain conditions, while using only one eye, saw a single object appear as three. A well-known biologist and good observer, about thirty years of age, told him that after working with the microscope—which he always used with the *right* eye—he lost sight with the *left*, especially for distance, and objects seen near were multiplied. This condition would pass away after some hours. On Oct. 17th, 1885, after working with the microscope with the right eye, he paid him a visit and described a single circle on a white ground, when seen with the left eye only, appearing as distinctly three rings. The circles were sketched at Mr. Wherry's request, intersecting, though sometimes they were quite separate. The object was held at 2' distance, further off was not multiplied, and nearer was blurred.

L. $V. = \frac{20}{30}$: cyl. − 0·75 *D.* − $V. = \frac{20}{20}$ easily.
R. $V. = \frac{20}{30}$: − 0·75 *D* $V. = \frac{20}{20}$

Ophthalmoscope shows a thin irregular atrophic crescent at each *o. n.*, otherwise normal. On Oct. 20th, after two days' rest from microscope work,

L. $V. = \frac{20}{30}$ improved with − 0·75 *D.* to $\frac{20}{20}$.
Rt. $V. = \frac{20}{20}$ easily : improved with − 0·75 *D* to $\frac{20}{15}$,

and the defect in sight and multiplication of images is no longer complained of. There was nothing to be discovered abnormal in the eyes except what was mentioned. The patient suffered from habitual constipation, and lately from fissure of the anus. Mr. Wherry said this was probably a case of ciliary spasm; it was curious that the eye which multiplied the image was not the eye which was used in microscope work. It was not unlike the case of uniocular diplopia which occurred in an amateur astronomer, and was reported by him to the Society in December, 1883.

Remarkable Fit after a Fall.—Mr. WHERRY also related the case of an athletic young man, who fell over a rope on to grass, picked himself up, made a remark, and then went off into an apparently unconscious state; was carried by his friends into the nearest shelter, and was laid on a table in a large room. When Mr. Wherry arrived the patient was surrounded by about twenty sympathising friends; his right elbow, supposed to have been hurt, was being supported, and he lay on his back; face flushed; eyes closed; apparently unconscious. Limbs and joints seemed perfectly sound; the right arm was rigidly fixed in extension; the little finger flexed forcibly into the palm. Some slight facial contortions occurred when the lower cervical spine was pressed upon. The eyes seemed closed by effort; the pupils active and equal. Did not speak or answer questions. When asked if he had walked after the fall, and if the right leg had been stiff like the arm, a strong rigidity immediately occurred in the right lower limb. In about twenty minutes he answered a question with a short grunt. Was put to bed; passed urine eight hours after the fall, about eleven hours after his lunch. He gradually recovered in about three days. There was a history of a severe fall, while steeplechasing, two years before, and he was said to have been unconscious for days, followed by frontal headaches of a severe kind. This may be looked upon as a so-called "hysterical" fit. The influence of suggestion in stiffening the right lower limb, and perhaps also the elbow, is worth noting. The rigidity was very marked, the muscles becoming hard, and the right limbs resisting all attempts at flexion. Careful examinations failed to detect any lesion, not even bruise or swelling of the skin.

The following specimens were also shown by Mr. Wherry: Fatty Tumour of the Tongue; Horny growth from face.

Notices of Books.

Ein Beitrag zu den Operationen der Cephalocelen (A Contribution to the Operative Treatment of Cephalocele). Pp. 33. By Dr. BERTHOLD FLOTHMANN. Berlin: Henser.—This *brochure* contains the account of a case of cephalocele which was successfully treated by excision, the child dying eighteen months later of hydrocephalus. A needle armed with stout silk was passed through the centre of the pedicle, which was now tied in two halves; the tumour was then cut off, and, after tying one artery, the edges of the wound were carefully brought together with twelve sutures. An iodoform dressing was applied. There was little or no reaction, union being perfect on the third or fourth day, when the stitches were removed. The sac contained a serous, slightly blood-stained, albuminoid fluid, with a specific gravity of 1006. The interior of the sac wall was for the most part smooth; but presented near its attachment a somewhat villous appearance. There are figures representing the case before and after operation, as also the microscopic structure of the sac wall. The author reviews and summarises the various measures which have been adopted by different surgeons for the removal of such

cases. The occurrence of hydrocephalus after successful removal of the sac is an interesting fact, and is in keeping with the but too frequent result of obliteration of the corresponding malformation of the spinal column—i.e., spinal meningocele,—whether by removal or after injection.

The New Religio Medici (Chapters on Present-day Subjects). By FREDERICK ROBINSON, M.D. London: Elliot Stock.—Under the above title are included a series of short critical essays dealing with certain subjects relating to religion and modes of public worship which are capable of treatment from a medical standpoint. The author is evidently well read in Scripture. His position is not that of a merely dispassionate observer, or, in modern language, Agnostic, but of a sympathetic exponent of Christian doctrine, while at the same time there is little or nothing of morbid asceticism in his belief as here expressed. The book opens with two chapters of sensible remonstrance against the monotonous formality of Sunday services as they are often conducted, supported by a protest in favour of a less automatic, more attractive, and still perfectly orthodox system. The familiar questions connected with the action of faith as a healing power are treated in a judicious manner. Then follow chapters on "The Church and the Army," on Hinton's theory of "Universality through the Flesh," &c. There are interesting and studious reflections on the origin and purpose of sickness, on "Biblical Plague and Pestilence," and on "Possession by Demons." Among the faults of the work we have noticed in some parts a certain laxity in the argument, and especially an abruptness in style, which, if concise, is rather too bare to be attractive. It is, we might say, Carlylean, without the glow of picturesqueness which gives a living force to the writings of the Puritan in letters. This defective style is partly due, no doubt, to the purely didactic nature of the purpose by which it is inspired.

Hints on the Breeding and Rearing of Farm Animals. By THOMAS WHALLEY, Principal of the Royal Veterinary College, Edinburgh. Pp. 68. Turnbull and Spears. 1887.—The little book before us is an enlarged edition of an address read before the Fife Farmer's Club on the breeding and rearing of animals. It deals with a subject of the first importance, not to farmers only, but to every resident in these islands. We must congratulate the author on having placed in so small a compass, so tersely, so simply, and yet so thoroughly, the first principles of farm-breeding before his readers. He touches upon the choice of parents, and the management they require during the breeding season; next, on the management of both parents and young at the period of parturition; and, lastly, on the management of the young subsequent to their birth. The practical farmer will find some simple but most excellent advice in this book on the subjects just mentioned. We would specially refer him to the sections which deal with cleanliness, a matter which is far too often left entirely out of his consideration. The author shows that cleanliness of the stalls, of the drinking water, of the attendants themselves, and wholesomeness of the food, are as essential items in the rearing of healthy animals as they are in the rearing of healthy human beings.

Journal of the College of Science, Imperial University, Japan. Vol. I. Part 3. Tokyo, Japan. 1887.—This part contains some very creditable work done by the professors and students in the Science College of the University of Tokyo. The first memoir is by K. Mitsukuri, the professor of zoology, and C. Tshikawa, assistant in zoology, and is upon the formation of the germinal layers in Chelonia. The material for this was obtained from M. Hattori's large hatching establishment in Honjo, a suburb of Tokyo, where hundreds of the snapping turtle (Trionyx Japonicus, Schlegel) are annually bred for culinary purposes. It may just be noted that they agree with Balfour and Hartwig in stating that the mesoblast always arises as paired masses, one on each side of the median line, and that these two masses are to be regarded as paired denticula of the alimentary canal. This memoir is illustrated with four plates. 2. S. Watase: On the Caudal and Anal Fins of Goldfishes, with two plates. 3. C. Sasaki: Some notes on the Giant Salamander of Japan (Cryptobranchus Japonicus). 4. Aikitu Tanakadate: A Coilless Pocket Galvanometer and a Flat Coil Pocket Galvanometer. 5. B. Koto: Some occurrences of Piedmontite in Japan. 6. S. Sekiya: The severe Japan Earthquake of Jan. 15th, 1887. 7. C. G. Knott: Notes on the Electric properties of Nickel and Palladium. 8. A. Tanakadate: Note on the Constants of a Lens.

Sul Laringismo Stridulo e le Convulsioni dell' Apparato Respiratorio (Laryngismus Stridulus and Respiratory Convulsions). By Dr. W. H. BARLOW. — This is a reprint from the "Archiviodi Patalogia Infantile," published in in Naples. Dr. Barlow (of the Manchester General Hospital and Dispensary for Children) discusses the causes of these convulsions, and especially points out how in artificially fed children, who so frequently suffer from gastric irritation, such convulsions are produced. The share which rickets plays in their production is referred to, though too briefly; and among the remedies he suggests, we notice that cod-liver oil is not mentioned, which, in our opinion, should be the practitioner's sheet-anchor. The *brochure* is an interesting summary of what is known on this matter.

Atlas von Beleuchtungsbildern des Trommelfells (An Atlas of the Membrana Tympani as seen through the Otoscope). By Dr. KURD BÜRKNER. Fourteen Tables in Chromolithograph. Jena: Gustav Fischer. 1886. — The author, who has charge of the ear department in the University Poliklinik at Göttingen, has published this Atlas as a complement to the many existing text-books on ear disease, and in the hope of facilitating the interpretation of what may be seen through the otoscope. The plates contain eighty-four figures, with brief descriptions. Each figure is taken from nature by the author, and the most common forms of ear disease have been selected. In conjunction with a good description of the disease, such as is furnished in many of the text-books, this Atlas will prove very useful and very acceptable, especially to those who are commencing this kind of work, as well as to such as are not within reach of special instruction.

The Common Diseases and Accidents to Life and Limb. By M. M. BASIL, M.A., M.B., C.M. Edin. London: J. and A. Churchill.—In the form of a popular lecture, Mr. Basil has contrived to convey in a readable and entertaining manner a large number of sound hints to those who may be in attendance on persons who meet with accidents or who suffer from various medical and surgical affections, including insanity. His advice is more frequently not to do things which people are in the habit of doing than to resort to a specific set of directions as to treatment, and he very properly exposes several popular fallacies. Amongst other matters, the author gives some excellent hints about the manner of "sending for the doctor."

Atti della Reale Accademia Medica di Roma. 1883-86. Vol. XII., Serie 2.—This volume of the proceedings of the Royal Medical Academy of Rome contains the following articles:—Pyelo-nephritis, by Professor Majocchi; Interparietals and Preinter-parietals of the Human Skull, by Professor Sergi; the Connexions of Muscle with Tendon, by Professor Giuliani; the Prophylaxis of Phthisis, by Drs. Celli and Quarnieri; the Development of the Sulci and Convolutions of the Brain, by Dr. Mingazzini; some Statistics of Disease in Rome, by Professor Scalzi; the Chemical Reactions of Vibratile Cilia, by Dr. Bocci; and the Blue Pigment of Physalia Pelagica, by Professor Colasanti. These papers are many of them of considerable interest, especially when read with the assistance of the plates and diagrams which accompany them.

Analytical Records.

ALPINE MILK GUARANTEED FREE FROM SUGAR OR ANY OTHER FOREIGN SUBSTANCE.

(FIRST SWISS ALPINE MILK EXPORTING COMPANY, SWITZERLAND.)

ANALYSIS showed that this article is genuine condensed milk. It contains no trace of added sugar, or of boracic or salicylic acid. Diluted with two parts of water it gives a milk rather above the English standard—that is to say, a milk which, although not very rich, is rich enough for domestic use. The direction on the label is that three parts of water are to be added. This would give rather a poor milk, which would contain only 8·15 per cent. of non-fatty solids, 1·97 per cent. of fat, and 0·65 per cent. of ash. It will be seen that the milk is absolutely free from adulteration. It is a valuable article, and can be used with confidence if not excessively diluted.

BON FOOD.

(BON FOOD SUPPLY COMPANY, 31, CHARLOTTE-STREET, OLD KENT-ROAD.)

A mixture of cereal and leguminous flour with a small quantity of sugar. It is well prepared, and is a highly nutritious and convenient form of food. It is well adapted for domestic purposes, and can be used with advantage for puddings, custard, and porridge. It is needless to add that it is highly nitrogenous.

LEMONETTE.

(WILLIAM WHYSALL, GRANTHAM.)

We have before noticed with approval Mr. Whysall's preparations. The present is an excellent non-alcoholic beverage, quite free from lead and other poisonous metals and from mineral acids; 100 cubic centimetres contained acid equivalent to 1·673 grammes of citric acid, which is a fair proportion.

LOCK'S BEEF EXTRACT.

The sample we examined contained the following:—

Water, expelled at 212° F.	64·5
Organic constituents	32·0
Ash (phosphates, &c.)	3·5
	100 0

Beef-tea made from it was good in flavour. Finely divided fibre was found to be present in considerable quantity. The preparation evidently contains the whole of the meat, and as such is of great nutritive value.

RUSSIAN CAVIARE.

(CH. H. SENN, 329, VAUXHALL-BRIDGE-ROAD.)

This is pressed caviare of excellent quality. Ordinary caviare is so very oily that many who like the taste cannot eat it. Pressing removes much of the oil and improves the flavour in a remarkable degree. We recommend all who are benefited by cod-liver oil to try pressed, if not unpressed, caviare on buttered toast with a little lemon. It is unnecessary to commend it to the epicure.

TABLE DELICACIES: POTTED FOIE GRAS, DEVILLED TONGUE, SARDINE PASTE.

(CH. H. SENN, 329, VAUXHALL-BRIDGE-ROAD.)

All that the analyst can say of these preparations is that they are well made and free from adulteration. That they are excellent in flavour the public will soon discover.

BROMIDINE (BORLAND'S PATENT DISINFECTANT, ANTISEPTIC, AND DEODORISER).

(MAY & BAKER, BATTERSEA, LONDON).

The value of bromine as a disinfectant is admitted by all, and this preparation is certainly a most convenient source of the element. The white powder has merely to be moistened with water, and bromine vapour is given off in abundance. Following the printed directions, we took as much of the powder as would lie on a penny, and, treating it with water, found that six grains of bromine were liberated. There is no trouble or risk of failure in the use of the preparation, and it is certain that bromine could not be so easily generated in any other way.

LIQUOR PODOPHYLLIN ET PEPSIN (HOCKIN).

(HOCKIN, WILSON, & CO., DUKE-STREET, MANCHESTER-SQUARE.)

Hockin's well-known liq. podophyllin is now associated with pepsin. In such a mixture all depends on the quality of the pepsin, and as we find by experiment that a small quantity of the liquid dissolves a considerable quantity of starch paste, we have no hesitation in recommending it. Hockin's podophyllin and pepsin is a trustworthy preparation.

LIQUOR PODOPHYLLIN ET BELLADONNA C. STRYCHNIA (HOCKIN).

(HOCKIN, WILSON, & CO., DUKE-STREET, MANCHESTER-SQUARE).

This, like the last, is a genuine and reliable preparation, suitable for hepatic and intestinal derangements. The strychnine can be extracted by ether, and is recognised easily by the bitter taste and the bichromate test. Each drachm of the mixture contains one-fourth of a grain of podophyllin resin, one-eighth of a grain of extract of belladonna, and one-thirtieth of a grain of strychnine.

TETT'S LILY TABLET.

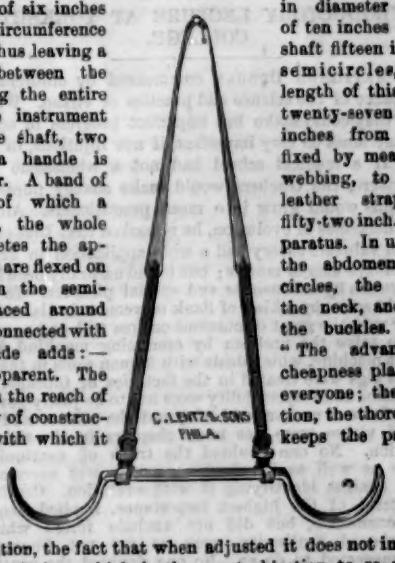
(F. G. TETT, 80, CARLTON-STREET, KENTISH TOWN).

This is a white, solid cake, smelling of camphor and slightly perfumed. It is not a soap, but is intended for use after washing. The presence of camphor is readily detected by careful sublimation, and the residue saponifies easily with potash, white fatty acid separating from the soap on the addition of acid. It is a pure and elegant toilet preparation, well adapted for softening the skin.

New Inventions.

APPARATUS FOR MAINTAINING THE LITHOTOMY POSITION.

THE apparatus figured in the woodcut was designed by Dr. McBride, of Philadelphia, to enable the surgeon to keep his patient in the exact lithotomy position during the performance of operations on the perineum or neighbouring parts. "It consists of a piece of hard elastic wood, ash, hickory, or white oak, one inch wide, three-eighths of an inch thick, thirty-six inches long, bent at each end in a semi-



circle of six inches in diameter or a semi-circumference of ten inches and a half, thus leaving a shaft fifteen inches long between the semicircles, and making the entire length of this part of the instrument twenty-seven inch." To the shaft, two inches from each end, a handle is fixed by means of leather. A band of webbing, to each end of which a leather strap is sewed, the whole fifty-two inch. long, completes the apparatus. In use the thighs are flexed on the abdomen and put in the semi-circles, the hand is placed around the neck, and the ends connected with the buckles. Dr. Mc Bride adds:—"The advantages are apparent. The cheapness places it within the reach of everyone; the simplicity of construction, the thoroughness with which it keeps the patient in position, the fact that when adjusted it does not impede the circulation, which is the great objection to so many similar inventions, the lightness and strength, render it a valuable acquisition to the surgeon and gynæcologist."

THE "NELATON" PATENT VALVE SYRINGE TUBE.

THIS syringe tube has been introduced to supersede those generally in use on account of two special features. First of all it is perfectly flexible; then, instead of the usual aperture, it has several fine slits which open out when fluid is forced into the tube, but are quite closed and almost imperceptible at other times. The flexibility of such a tube

is a matter of the very highest importance; the number of accidents that have occurred, even to trained nurses, from the use of ivory and other rigid enema tubes is so large that they ought to be universally abandoned. It is also well known that unless great care is taken in its manufacture, the common large aperture in a rubber tube may be a cause of a great deal of pain to the patient. This cannot arise when such a tube as the "Nelaton" is used.

NEW UTERINE SUPPORT FOR EQUESTRIENNES.

SHORTLY after my association with the Wild West I asked the frontier girls whether the violent riding did not shake them considerably, and was told that at times they suffered a great deal of pain. I advised them to get abdominal belts for support whilst riding; they did so, and felt great benefit therefrom. On talking the matter over with Mr. E. Huxley, of Old Cavendish-street, he suggested a uterine support, which consists of a peculiar shaped pad with two straps which cross over the sacrum, and are brought to the front and fastened with any amount of tightness the wearer may find desirable. I got him to make one for each of the girls, and they say they are such a comfort and support that they will never ride without them. I think the belt will prove a great blessing to ladies in the hunting field, as well as to professional riders.

R. J. MAITLAND COFFIN, F.R.C.P. ED.

Baron's Court, S.W., Oct. 1887.

INTRODUCTORY LECTURE AT YORKSHIRE COLLEGE.

DR. MATTHEWS DUNCAN commenced by enforcing the importance of the science and practice of virtue. Without virtue they could make but imperfect progress in science, and they must be very imperfect, if not injurious, in practice. If a medical school had not a wholesome moral atmosphere, the teachers would make shabby pupils, and the pupils would grow into mean practitioners. Alluding to the doctrines of evolution, he remarked that that charming and valuable theory had a wide application in biology, and perhaps also in morals; but it had naturally been forced to extremes by enthusiasts and special pleaders. To such, it would seem, by a kind of flank movement in dialectics, to render vain the great discussions on free will and necessity, and to solve the problem by cramming mankind into a fatalist machine, which dealt with human souls in the same way as pigs were treated in the factories of Chicago. But conscience and responsibility were not to be justly governed by the laws of matter or of life; and the science and practice of virtue were not mere chapters in the theory of evolution. No one doubted the truth of continuity in morals as well as in physics; yet it was necessary to guard against identifying it with evolution. Continuity, a doctrine of the highest importance, implied sequence with connexion, but did not exclude forces which, if they obeyed continuity, were as yet not known, but only suspected to do so. No one doubted the continuity of the prevalence of scarlet fever. It was always among us, carrying off its victims at, at least, an average rate. But that continuity, with its average, was violently disturbed—not utterly broken—by the unaccountable appearance of epidemics, which despised the average and raged according to a different law. So, in politics, there was a continuity, but it was disturbed by a Cæsar, a Charlemagne, or a Napoleon. So, in the science of medicine, continuity was modified by a Lavoisier, a Bichat, or a Schwann. So, in the practice of medicine, continuity had its uniformity of course interfered with by a Hippocrates, a Galen, or a Cullen. The appearance of a great original genius in medicine was a matter equally beyond their powers of explanation or control. It appeared to infringe the law of continuity, as that law was known to them by the general progress of professional knowledge. Every sane man, and every sane school, provided according to the known laws of continuity. No sane man conducted his education as that of a great original genius. No wise school provided for other than the average intellect. But this provision, according to the law of continuity, with its averages, did not imply flat sameness, or absence of genius in individuals, or the uselessness of individual effort. Were such perversion of the laws of continuity into the fatalist form of evolution sanctioned, then individual effort, if not utterly useless, would be at least discouraged or paralysed, and his remarks would be baneful and misleading. Medical students had to study the continuity of their individual lives, the continuity of their social lives, as members of a school, and the continuity of their social lives as members of a profession. By individual effort they must push this way and that, always taking care that the direction was to higher and better. They should aim at accumulation of knowledge, acquisition of skill, and improvement in virtue, the last being paramount, and bringing all the rest in its train. Having glanced at the advantages which students now possessed as compared with those obtainable 100 years ago, Dr. Duncan said the amount of knowledge was always increasing, and with it the amount of time needful for its acquirement. Not long ago three years were enough. Now four were required, and it looked as if it would soon rise to five. Every medical school should keep the university ideal before it, and this was implied in their Leeds school being now in process of incorporation with a rising university. In the universities of Scotland and Ireland that ideal was maintained. No medical school had a more interesting or more honourable history than that of Leeds—a history that plainly indicated vigorous life, and showed great rapidity of healthy growth. Started in an imperfect form, not much more than half a century ago, by the wise enthusiasm of a few medical men in the town, it had grown into a completely equipped and recognised medical school, and, already forming part of the Yorkshire College, it would soon, he understood, be completely incorporated with the prosperous Victoria University. They might well be proud of the nursery in which they were reared and passed on to the ranks of the medical profession.

"IS CANCER CONTAGIOUS?"

To the Editors of THE LANCET.

SIRS,—The interesting question is raised in an annotation in THE LANCET of this day as to whether cancer is contagious. M. Duplouy's case certainly gives some grounds for believing that it is so. I daresay it has fallen to the lot of others, more than it has to my own, to observe with regard to this disease equally remarkable "coincidences." And I venture to say that if to such experiences as M. Duplouy's publicity were given, they might prove a means of elucidating valuable facts with regard to this insidious disease. A case of this kind came to my knowledge some time ago, the particulars of which, I think, are worth relating briefly.

A member of the medical profession married a lady who was subsequently found to labour under mammary and uterine cancer, from which she soon died; not long afterwards the gentleman himself, who had previously been healthy, developed symptoms of cancer, which disease subsequently became localised in the stomach and liver. Before his death he again married, and a year or so later the second wife was under the necessity of having both mammæ removed for cancer, in successive operations, and she sank after the second operation.

I am, Sirs, your obedient servant,

Harley-street, W., Oct. 8th, 1887. JAMES ADAM, M.D.

THE LANCET.

LONDON. SATURDAY, OCTOBER 15, 1887.

THE decision of the International Hygienic Congress to hold their next meeting in London makes their recent proceedings in Vienna of especial interest to Englishmen. It has only of late years been possible to regard the subject of hygiene as one fitted for international consideration. The complete neglect of sanitation in some countries and its imperfect recognition in others proved that its relation to national prosperity was not sufficiently understood, and suggested that no general European interest would be felt in the discussion of conditions affecting health. By degrees knowledge has increased, and, taught by the sad experiences of the last few years, the more enlightened nations have turned their attention to methods of preventing disease. As a result the Congress at Vienna brought together nearly three thousand people from all parts of the globe, and papers were read and discussed in a manner which proved that a higher value attached to health than heretofore. This was especially seen in the demand for legislative control which was put forward by many who took part in the proceedings at Vienna. Interference with the freedom of personal action is more readily accepted on the Continent than in England, and it is but natural that those who have satisfied themselves of the advantages which legislation on one point or another would confer on communities should thus wish to enforce their doctrines. But the Congress showed, as all Congresses show, that if the opinion of the many is to be made the basis of legislation there would at times be the greatest amount of interference with the least amount of good. The Vienna meetings will serve the double purpose of indicating the necessity of skilled investigation of the causes of disease, and of encouraging statesmen to rely upon work of this character rather than upon collective opinion.

The excellent work which is carried on in the continental laboratories has undoubtedly had its effect in teaching the value of exact knowledge, but there was none the less too great a desire at Vienna to record by resolution the opinion of numbers, regardless of their fitness to exercise any proper judgment upon the points at issue. This was especially objectionable when the subject had any reference to the practice of different nations. In meetings composed in greater part of members of one race and of one way of thinking, it was impossible that decisions should not depend upon this circumstance, and any attempt to express an international feeling, whatever it might be worth, was therefore certain to lead to an untrustworthy result. In the Congress to be held in London this would be still more undesirable. In some respects England is far in advance of other countries; she has been the subject of numerous experiments extending over many years, and the experience thus bought has placed her sanitary administration on a more secure footing. It would be impossible to prevent English feeling unduly preponderating if collective opinions were sought at meetings in London, and it will be well to guard against any action that would place the members of other nations at a disadvantage.

The best work of the Congress is educational. The excellent paper of M. EMILE TRÉLAT of Paris will certainly do much to encourage a study of the principles which should guide architects and local authorities in the building of houses and the laying out of streets. The accumulation of evidence in papers read before the Congress that cholera is disseminated by human intercourse, and especially by the fouling of water supplies, will give impetus to the improvement of localities which may now give opportunity for the propagation of this disease. It is by work of this nature that the teaching of peoples can be best effected, and the fact that all nations are alike interested in the questions which affect life is the best promise that their study will progress.

IN an able and interesting article published in the *Fortnightly Review* Mr. CHARLES ROBERTS deals with the question of the physical degeneracy of our town populations. The inquiry is for obvious reasons chiefly concerned with the condition of the labouring classes, though, in contrasting variations of death-rate, average weight, stature, and the like, there is an inseparable reference to the vital state of whole communities, without regard to rank. The author of this paper, we are pleased to note, is not one of those prophets of evil in whose eyes the future of our poorer townsfolk wears only an aspect of unbroken gloom. It is true he does not ignore the fact that causes hostile to the natural and vigorous development of human life are more largely present in cities than in rural districts; but while admitting this, he justly objects to the wholesale acceptance of evidence derived from statistics which are still necessarily imperfect, and he acknowledges the certain past and probable future success of efforts in the direction of sanitary reform. Among the signs of a progressive degradation of the national type as found in towns have been classed the diseases and infirmities of constitution exposed in examinations of recruits enlisted for the army at the present day as compared with those of twenty-five years ago. Sir THOMAS CRAWFORD entered at some length into this subject in an address delivered at the last annual meeting of the British Medical Association. While granting the premiss that the number of rejections on the score of bodily unfitness in the period 1860-64 amounted to 371·67 per 1000, and in the years 1882-86 to 415·58 per 1000, he refuses to accept the adverse conclusion drawn respecting the physical condition of men enlisted during the latter period, and chiefly in towns, inevitable as that may at first sight appear. In dealing with these data we must, as he says, take account of the fact that formerly rejections were not officially notified with the same strictness as they now are, and also that under the present short-service system allowance has to be made for a larger number of half-grown youths provisionally recruited without previous examination. These qualifications of necessity, and very materially, affect the value as evidence of the statistics in question. We doubt, indeed, if on other grounds the relevancy of the latter as regards the subject before us can be maintained. On a comparison of the two tables, it is at once evident that certain particulars of health, which are noted and have

their numerical equivalent in the later, are not even mentioned in the earlier; and, what is of even greater consequence, in the list of failures included under the former category, deficient weight, chest measurement, height, and erroneous age go far to swell the total, while there is decidedly less evidence of serious bodily disease or deformity. The recruit, if smaller, is healthier and better made; and while we cannot deny the important significance of diminished size, neither can we, in the face of a frequent miscalculation of age, of which there is ample evidence, resist the impression that youths have in many instances been enlisted instead of men. Statistics of this character have consequently the less value as bearing on the condition of the adult population. The whole argument, as far as it rests upon this kind of proof, is as yet quite unripe for accurate decision; and while therefore we must be careful not to ignore the suggestive note of warning thus conveyed, we must equally avoid any tendency to pessimism, founded on such insufficient data. If, again, we turn for information to strictly civil life, there is no lack of circumstances which obviously tend towards deterioration. Measures of sanitation have not certainly among the masses inhabiting our larger towns arrived at that perfection which is desirable. Physical energy is far too often overwrought, and the conditions of daily work are too commonly insalutary. Improvement in this direction is, however, steadily progressive. There is also an increasing tendency on the part of employers to allow, and on the part of the employed to accept and utilise, some hours of the working week for purposes of recreation. Physical exercises are, as a consequence, viewed with increasing favour, and, whether for child or man, are winning their natural place among our national necessities. It was never, indeed, to be expected that they would cease to be regarded with favour. The sole fear was that their right of observance might be swallowed up by the more urgent claims of labour, and this fortunately the common sense of public opinion is not likely to allow. The food question, though probably incapable of a wholly satisfactory solution, occupies a position much advanced beyond that which it held in the earlier half of the present century. The influence of this and other allied matters of nearly equal moment, a decided and general rise in wages, diminished cost of clothing, of house-rental, and of living as a whole, have, as Mr. ROBERTS observes, exercised a most beneficial effect in checking that process of retrograde change which many regard, not without a reason, as a possibility of the future. Thus far, however, we feel a certain satisfaction that the evil of decadence is more visionary than real, but at the same time we must recognise the practical truth that continued future prosperity is compatible only with a vigilant observance of those laws of healthy life which nature constantly defends by imposing on those who disregard them the penalties of physical enfeeblement and final extinction.

THE French, imaginative and inventive as ever, are, generally speaking, more suggestive and less matter of fact than most other nations. Take, for instance, the subject of Hystero-saturnine Paralysis, which has created considerable interest in French papers of late. Hysteria engendered by lead poisoning may produce sensory and motor paralyses having all the essential characters of ordinary hysteria. Such paralyses must therefore be regarded as of genuine hysterical nature. We believe that these propositions express the central idea of those who have lately written on the question; certainly of M. POTAIN, whose contribution may be read in *Le Bulletin Médical*, No 54. The case recorded there was that of a man aged twenty, a house painter by occupation, who had followed his calling for eight years. He suffered on three separate occasions from lead colic, the last occasion being in 1885. About the same time he was also the subject of an attack of typhoid fever. But beyond these illnesses he had never suffered from any complaint, and certainly not from nervous morbid phenomena, being neither more irritable nor more emotional than the common run of men; nor had his sleep ever been disturbed by night terrors or by nightmares. Finally, he does not seem to have committed any excesses either in venery or alcoholism. In the family history a slight neuropathic disposition appears to exist.

Fifteen days before his admission to hospital the patient experienced in his right arm, without any apparent reason, an increasing weakness, which gradually progressed to the point of complete wrist-drop. The treatment pursued in the hospital consisted in the employment of faradisation, iodide of potassium, and sulphur baths, but no definite improvement resulted to the paralysed member. There was total inability to extend the fingers or the wrist, and he had no power of abducting or adducting the wrist joint. The flexion of the forearm upon the arm was voluntarily possible, and in this movement the long supinator manifestly joined, although its contraction was feebler than that of the sound limb. *The paralysed extensor muscles of the forearm contracted energetically on the application of the faradaic current*, more energetically and more rapidly than the muscles of the sound arm did to the same strength of current. It was further observed that the patient bore with equanimity and without apprehension or pain the most powerful faradaic shocks on the paralysed limb, again contrasting strongly with the opposite limb. From time to time complaint was made of cramps in the legs, and further investigation discovered that there was anæsthesia of the right side of the body, and of a typical hysterical sort. The tactile sensibility was diminished, painful sensations were not felt at all, and sensations of heat were scarcely recognised, and to them he certainly made no resistance. There was no loss of colour-vision, or any disturbance of the same, but the acuteness of vision was blunted, and the diameter of the visual field of the right eye measured but one-half of that of the left. The acuity of hearing was likewise lowered in the same degree as that of vision, and on the same side. But although the olfactory sense was diminished on the right side, there did not appear to be any defect of the sense of taste proper. A slight but definite "lead line" was detected at the base of the canine teeth. The difference in the grasps of the two hands was represented by the numbers 9 for the right and 31 for the left hand. The right hand and forearm were also colder than the left. A horseshoe magnet was applied to the outside of the right forearm, and its application continued for forty-eight hours, at the end of which time the paralysis was found to have changed sides, as in ordinary cases of *transfer*. A few days later the para-

lysis almost entirely disappeared, but some of the symptoms remained longer, though lessened in degree.

It is perhaps not assuming too much to suppose that many practitioners would have been contented in this case to diagnose the presence of lead paralysis; but the anæsthesia and the character of the electrical reactions, together with the precise distribution of the paralysis, form a group of conditions sufficiently antagonistic to such a diagnosis.

The chief lesson to be inculcated in cases of the kind is the necessity of recognising the fact that diseases of different kinds may coexist and progress together in one and the same organism, and we should admit the possibility of this combination whenever any unusual circumstance is evident in a case in which the probability is great that the two or more lesions are results of the same morbid agent. If a patient has a rash on the body suggestive of syphilis, and has also vague symptoms of nervous disease which may be syphilitic, the most probable diagnosis is that the nervous lesion is also syphilitic; but we must allow that other causes may also be acting, aiding and abetting the syphilitic cause, and such causes will frequently be found to be either lead, alcohol, or mercury. We may remark, in conclusion, that LETULLE and others believe mercury may be a cause of hysteria, and that syphilitic patients with nervous tremors may confront the practitioner who attributes the movements to syphilis, when in some cases it is evident from further inquiry that a long mercurial or iodide treatment may have had some share in the causation of the abnormal movements.

THE nature and limitations of the protection of the Leicester community from small-pox is now pretty well understood. Even the sanitary authorities of Leicester dare not yet—as our Commissioner has shown—face the awful disease without the protection of vaccination, and generally of revaccination or previous small-pox. This protection the sanitary authorities, as a whole, have done much to disparage, so that they boast of an enormous number of absolutely unprotected persons. The only security of such persons is living in Leicester, and this only holds so long as vaccinated persons can be found to face importations of small-pox, and the importations themselves are few and far between. It is conceivable that the authorities in Leicester may carry their detraction of vaccination so far that vaccinated persons will not be forthcoming to stand between the plague and the people as at present; or small-pox may not always be so much in abeyance as now—not having caused one death in Greater London for a month past or more, and most of the twenty-eight greater towns being equally free. There is no great virtue in not contracting small-pox when it is so scarce. But some day it may rage as a fire, and Leicester people will be apt to find that they have been living in a fool's paradise. The authorities do not promise them any security outside of Leicester. Their policy may be compared to that of a father who, to save his children from being drowned, denounces swimming, and thinks to keep them from going to the seaside. All that need be said now is that intelligent unvaccinated people in Leicester—if such an expression be permissible—have no excuse for being deceived as to the limitations of their protection. All the sanitation in the world will not make small-pox anything else than small-pox, any more than it will make arsenic less than arsenic. All the admirable sanitary police arrangements of Leicester—to which our Commissioners did justice—will not avail one of its citizens who happens to stray into a neighbouring town where small-pox rages. And here we propose for the present to leave this subject. It is a mistake to throw threats and warnings away. The occasion of our breaking silence was the remark of Mr. BIGGS that by sanitary measures alone small-pox had been stamped out, omitting all mention of vaccination-protected persons. This was too much for our patience after having been at special pains to ascertain the facts. But having reminded the public of the system which we explained last year, we leave the subject, well satisfied to leave violations of law and common sense to speak for themselves.

Annotations.

"Ne quid nimis."

SIR DYCE DUCKWORTH ON PHARMACY.

THE introductory address of the session was delivered by Sir Dyce Duckworth at the School of Pharmacy on the 5th inst., and right well did the lecturer acquit himself. There was a high conservatism in his views of pharmacy and prescribing; a misgiving about our new-fangled remedies and combinations of food and physic in all sorts of forms; but withal a very hearty recognition of the services rendered to medicine by the professors of the School of Pharmacy and its members generally. He expressed the opinion that the higher the proper education of a druggist, the less likely he was to forget his own duties and trespass on those of the medical man. Referring to recent legislation and the action of the Medical Council in perpetuating the Apothecaries' Society, he expressed dissent, and the belief that the need for apothecaries had now wellnigh ceased, and, indeed, that medical men had now too much to do and to think about to dispense well. Sir Dyce Duckworth does not like the exclusion of old and long-tried drugs from the Pharmacopœia, and made a feeling confession of his satisfaction, unlike Sir Henry Acland, at the retention of musk, which he largely uses. He was, on the other hand, disposed to regret that we have on our tables extra and unauthorised Pharmacopœias, though it must be admitted that they are often very useful indeed when the regular Pharmacopœia lags behind. He also mooted one or two questions of great interest to chemical manufacturers and pharmacists, such as the almost exclusive supply from Germany of such drugs as chloral hydrate and salicylate of soda, and the vast importation of the commonest drugs from America. These are questions for our pharmacists to settle. We agree with Sir Dyce Duckworth that they ought to be able to compete with either Germany or the United States.

SCARLET FEVER IN LONDON AND OTHER LARGE ENGLISH TOWNS.

DURING the thirteen weeks of last quarter the annual death-rate from scarlet fever in the twenty-eight large English towns dealt with in the Registrar-General's weekly return was equal to 0·39 per 1000 of the estimated population, corresponding with the mean rate from this disease in the same towns in the third quarter of the five years 1882-6, in which the rate ranged from 0·59 in 1883 to 0·23 in 1885. The rate in London last quarter was 0·40, while in the twenty-seven provincial towns the mean rate was 0·38, or only slightly lower. No death from scarlet fever was registered during the quarter either in Leicester or in Derby, and the lowest rates in the other towns were 0·02 in Notting-

ham, 0·06 in Sunderland, and 0·07 in Birmingham. The scarlet fever death-rate ranged upwards in the other towns to 0·59 in Preston, 0·66 in Manchester, 0·74 in Birkenhead, 0·90 in Oldham, 0·97 in Bristol, and 1·41 in Blackburn. It would be interesting to know what proportion of the fatal cases of scarlet fever in these several towns occurred in hospital. It appears from the Registrar-General's recent weekly returns that during the five weeks ending last Saturday nearly 40 per cent. of the deaths from scarlet fever occurred in hospital, showing a marked increase upon the proportions in recent years. The death-rate from scarlet fever during last quarter varied very considerably in different parts of London: it was 0·20 in the north, 0·29 in the west, 0·38 in the east, 0·46 in the central, and 0·57 in the south groups of sanitary areas. It is noteworthy that the highest rate last quarter in any of these London groups of districts was exceeded in Preston, Manchester, Birkenhead, Oldham, Bristol, and Blackburn. If the rate in South London be examined more closely, we find that it was 0·84 in Newington; 1·02 in St. Saviour's, Southwark; 1·12 in Bermondsey; 1·68 in St. George's, Southwark; and 2·73 in St. Olave's, Southwark. The sanitary authorities in Southwark should take particular note of the exceptional fatality of scarlet fever within their districts, affording evidence as it does in corroboration of the warning conveyed by the constantly high death-rates from all causes that prevail therein.

PROPOSED CHEMICAL LUNG TEST.

DR. ZALESKI, of the Dorpat Physiological Institute, has published in the *Vrach* (No. 32) an account of some researches he has been making with the object of introducing a new lung test, which may be trusted to give satisfactory results in cases where the hydrostatic test is inapplicable or of doubtful value. He suggests that, as at the moment of birth there is not only an influx of air into the lungs, but a very marked increase in the blood circulating through them, and as blood contains iron in a tolerably definite proportion, the quantity of iron found in the lungs should furnish a clue to the question as to whether the child had breathed or not. He examined the lungs of four stillborn children and of three children born alive; also those of a healthy man who had been killed by an accident. Having of course taken care that the lungs had not been subjected to any previous section or manipulation, he tied the roots and cut off the bronchi. They were then immersed in distilled water for the hydrostatic test, and, after being dried with filtering paper, they were weighed in a platinum dish, and sections were made and carefully examined. After this they were dried in a hot-air chamber at from 115° to 120° C. until they ceased to lose weight. Soda was added to the dried lung substance, also water, and the whole was dried in a water bath. The mass was then ignited in a Bunsen's burner, treated with water, and thrown on a filter, which gave no ash. The whole was then again ignited. Here, all the iron was of course, not in the filtrate. It was then heated with strong hydrochloric acid in a water bath. After the hydrochloric acid had evaporated, the residue was treated with sulphuric acid, reduced by zinc, and the iron estimated by a solution of permanganate. The result of the observations showed that the iron contained in the lungs of children that had breathed was always considerably more in proportion to their weight than in the lungs of stillborn children. The mean percentage of iron (Fe) in the lungs of the stillborn was 0·0110 of the weight of the fresh lung, and 0·0828 of that of the dried lung; whereas the mean percentage of iron in the lungs of the children who had been born alive was 0·0188 of the weight of the fresh lung, and 0·1182 of that of the dried lung. The iron in the case of the adult was still more than in that of the infants, the percentages being 0·0217 and 0·1266 of the fresh and dried lung substance respectively. In one case in which the child had lived for five days part of the left lung was found diseased, there being evidences of septic pleuritis and pneumonia. Here the diseased portion of the lung was separately examined, and found to contain a percentage of 0·0192 of iron in the fresh state, and of 0·1197 in the dry state, so that it would appear that the "iron lung test" holds good even for diseased lungs. The author has not made observations in cases where there has been profuse hæmorrhage from the cord, nor in those where putrefaction has commenced, but he thinks it probable that the test would answer here as well as when the lungs have been immersed in spirit. Of course, artificial inflation after death would not vitiate the test, as was indeed proved by one of the cases where Schultze's method of inflation was adopted five hours after stillbirth. Dr. Zaleski's "iron lung test" is evidently of too complicated a nature to be carried out by the ordinary practitioner, but in doubtful cases it would be quite practicable to preserve the lungs and send them to an expert, just as the stomach and other viscera are sent in poisoning cases. Before, however, any real value can attach to evidence deduced from it, a large number of experiments must be made by different observers, and their results collated.

BURIAL REFORM.

A MEETING of the Church of England Burial Reform Association was held at Wolverhampton on the 3rd inst., during the Church Congress week. The Mayor of Wolverhampton, Mr. Vincent Jackson, senior surgeon to the Wolverhampton and Staffordshire General Hospital, presided, and in his opening speech warmly advocated the claims of the Association, which, though promoted by members of the National Church, was unsectarian. He also observed that "its aims were not faddy, or ephemeral, or merely sentimental, but based upon the conviction that their adoption would benefit the human race. The Association was zealously endeavouring to impress upon the public that the only mode of burial of the dead which was consistent with the health of the living was that which enabled the body as quickly as possible to be brought into contact with the earth and the air, and its decomposition and its absorption effected. The best mode of burying the dead in a sanitary point of view belonged to the domain of preventive medicine. It was, therefore, the duty of medical men to become the Society's auxiliaries, and to give on all occasions the most emphatic and dogmatic counsel upon this vitally important question. The reforms required were as follows:—The coffin should be of the most perishable and lightest material, such as compressed pulp, metallic and every form of imperishable coffin being most objectionable. The interment should be as early as possible. The pall, which was an unnecessary and baneful covering, should be discarded. The burial should be in the plain earth, in conformity with the instructions of the Burial Service, 'earth to earth,' to the total disuse of vaults and bricked graves, which convert a graveyard into a heap of putrescent remains, a source of contamination of the most deadly character to surrounding wells and watercourses for all time to come." The following resolution was subsequently moved by the Mayor: "That the prevalent mode of burial is contrary to the mode plainly indicated in the Burial Service—namely, simple burial in the plain earth; and that a return to this simple mode is necessary on grounds sanitary and economic." In seconding this, Dr. Malet, medical officer of health for the borough of Wolverhampton, said that the present system of heaping bodies in graves, or, still worse, in cemented or built-up vaults, could not be too strongly condemned, tending as it did to the spreading of disease and injury to the health of those attending such burials. The resolution was unanimously adopted.

MICRO-ORGANISMS IN INHERITED SYPHILIS.

PROFESSOR DOUTRELEPONT of Bonn, writing upon this subject (*Centralbl. f. Bakteriolog.*, No. 13), reminds us that early last year Kassowitz and Kochsinger reported the detection in the organs of five cases of hereditary syphilis of streptococci, which were contained within capillaries or their vicinity. These cocci differed from those of erysipelas in their situation, and from streptococci pyogenes in that that they were not associated with suppuration. The authors refrained, however, from speculating as to their precise significance. Kolisko, who had made numerous preparations from syphilitic infants dying within a day or two after birth, had failed to find streptococci except in one case of furunculosis, and this he attributed to infection by the streptococci pyogenes. Again, Chotzen, in Neisser's clinic at Breslau, had discovered streptococci occasionally in the bones, skin, liver, and intestinal mucosa of subjects of hereditary syphilis; but he looked upon their occurrence as accidental; although there is no doubt these particular microbes are different from those of erysipelas and suppuration. Chotzen suggests that the cases in which they occur are instances of "mixed infection," and that a streptococcus-septicæmia may be the cause of death in many cases of hereditary syphilis. The ulcerated surfaces of the mucous membranes might conceivably be the entrance of the streptococci. Professor Doutrelepont then proceeds to give his own experience. He says that in pursuing his researches upon bacilli in syphilis he met with streptococci in papules removed from an infant that died fourteen days after birth. No lesion of bones or internal organs was found in this case. The histological examination of the affected skin showed the horny layer of the epidermis over the papules to be raised up, and between this and the rete mucosum were masses of streptococci and staphylococci, especially abundant in the hair follicles and ducts of the sebaceous glands. The cutaneous papillæ were infiltrated with small cells, especially around the vessels, and streptococci were met with here also. The bloodvessels were for the most part free from cocci, but in a few which contained blood streptococci were seen between the corpuscles. On the other hand, the lymphatic channels were blocked with the micro-organisms, some of which were even detected in the subcutaneous tissue around the sweat glands and between muscular fibres. By using special double-staining methods, Professor Doutrelepont was enabled to display in the same specimens the bacilli which have been described as characteristic of syphilis, although they occurred but sparsely. He believes that the streptococci have no relation to the syphilitic process, for he has never met with them in all his previous and numerous examinations of syphilitic products. He inclines to Chotzen's view that their presence is due to a septic infection, which the cutaneous and mucous lesions of syphilis render possible.

SELF-TREATMENT.

THERE are a great many persons with whom the treatment of their own illnesses is a familiar practice. In certain cases this is, perhaps, not unjustifiable—in those, namely, where a little knowledge of medicine is found to be useful rather than dangerous in dealing with lesser ailments, and where the means of cure are commonly safe in their action, even when they fail to effect a desired result. Care must always be taken, even in such cases, to guard against mistaken application. The position of medicinal poisons for internal use is altogether different. They have no allowable place in household therapeutics. We would caution even the members of our own profession against a too great readiness to betake themselves to such means of relief, since none can gauge his own condition and its needs so accurately as a careful and intelligent outside observer, who is able to correct subjective evidence by that of skilled examination. It is much to be regretted that these considerations are apt to be regarded as unworthy of notice. At intervals an accidental death by poisoning will awaken the public mind to a sense of the danger incurred by one who thus treats himself, often with the scantiest knowledge of that self and of the drug employed, and we may hope that the lesson thus impressed will in time be learned. Still, the sad occurrence of a week ago, when a gentleman fatally overdosed himself with laudanum and chloral, is far from unique. It may well serve as a warning proof that a general, or even a somewhat intimate, knowledge of the action of poisons is not enough to justify their use in self-treatment by persons otherwise uninstructed in medicine. The use of opium in particular is becoming much too common in the hands of others besides practitioners, and it is probable that instances in which death has thus been actually incurred bear only a very moderate proportion to those in which it has been narrowly escaped.

COMPLAINTS AGAINST HOSPITALS.

IT is to be wished that when a coroner finds himself charged with an inquiry that tends to implicate our great hospitals, he should summon the medical officers, who can explain the facts. Lately a paragraph went the round of the papers touching an inquest on a boy who had sustained a blow on the head from a cricket bat, and was in the first instance taken to St. Thomas's Hospital. Thereafter a medical practitioner was called in, who attended the case, which terminated fatally from abscess of the brain six weeks after it had been seen at the hospital. At the inquest the mother seemed to reflect on the hospital authorities for not taking her boy in, and for not examining him more thoroughly. We have been at some pains to ascertain the facts, and we learn that he was carefully examined on the last occasion of his visiting the hospital, and that no evidence of serious mischief was then found. It is certainly rather hard on house physicians and other medical officers to be blamed in their absence, and have no opportunity of defending themselves.

SCARLET FEVER IN LONDON.

THE number of cases of scarlet fever admitted into the hospitals of the Metropolitan Asylums Board showed a slight diminution during the week ending Oct. 7th. Previously to this the increase had been regular, and if we may judge by the habitual behaviour of this disease, the reduction to which we have referred does not augur that we have come near to the end of the epidemic. Probably this will not be seen until the first week in November, when it may be hoped that there will be some evidence that the climax has been reached. In the meantime the managers are learning by experience that the recent Royal Commission were well advised in believing that some 3000 beds would be required by London for the treatment of cases of fever. Already more than 1900 beds in the Board's hospitals are occupied by persons suffering from this class of disease alone, and we hear with regret that measles and chicken-pox have appeared among the convalescent patients at the Eastern and Western hospitals, and that the need for their isolation will make further demands upon the accommodation at the disposal of the Board. It is fortunate that the probability that more than one of the affections the managers have to treat will attain epidemic prevalence at one time is remote; nevertheless, some number of beds in separate wards are required for typhus and enteric fevers, and for those cases which prove not to be infectious fever, as many as 132 beds being at this moment needed for persons who have not scarlet fever. The force

of circumstances has proved plainly enough that the hospitals of the managers are no longer regarded by the public as Poor-law institutions, but as provision for infectious disease occurring amongst all classes of the community. At the same time, all the parishes have not agreed to consider these institutions as part of the metropolitan sanitary administration; some still cling to the idea that it is well to maintain the cumbersome machinery which is required for the admission of the sick into Poor-law infirmaries, and insist upon the order of the relieving officer being obtained before the infectious person can be removed. As has been pointed out, it is time that this came to an end. If the present epidemic does no more than advance the time when London will be given a uniform sanitary administration, its occurrence will be less matter for regret. If the necessity for some better control of infectious disease is not recognised through the loss of life which has occurred, it is probable that the sum of money expended this year for hospital provision will teach this lesson to London ratepayers

WINDOW-CLEANING ACCIDENTS.

ATTENTION has been repeatedly called to the extreme risk to which servants are exposed when standing or sitting on the outside ledges of windows for the purpose of cleaning them. It should go without saying that such work is wholly unfit for female servants and they ought never to be permitted to clean the outside of windows at all. Even for men, unless they are steady, careful, and "strong"-headed, there is much danger. Yet what is to be done? The professed window-cleaners are generally reckless of carpets and paint, and the percentage of panes of glass they break, while repudiating all liability for damages on frivolous pretences, is very large; moreover, they are so arbitrary in their practices and aberrant in their arithmetic that it is a misery to employ them. Windows ought to be so constructed as regards sashes that they could be cleaned from the inside. Where this is not practicable it is better to use long-handled pads, which do not necessitate either standing or sitting on the ledges, or leaning against the too often broken or insecure frames themselves. It is lamentable that limbs and lives should be imperilled and occasionally sacrificed in the performance of a simple and quite ordinary domestic function which ought to be wholly free from risk.

NORWEGIAN LUNACY STATISTICS.

AN official report recently issued in Norway gives some interesting statistics relating to the inmates of lunatic asylums in that country. It appears that at the beginning of last year the eleven asylums dealt with in the report contained 1319 inmates, that 690 were admitted during the year, that 611 were discharged, and that 71 deaths occurred, leaving the number of inmates at the end of the year 1327. It need scarcely be pointed out that the number of the insane confined in lunatic asylums affords no clue to the number of the insane in any country. The rapid increase of the asylum population in England and Wales in recent years cannot be accepted as evidence of increase of lunacy, because we know that there has been in this country a constantly increasing proportion of the insane treated in asylums. In England 70 per cent. of the known insane are in asylums, 22 per cent. are in workhouses, and the remaining 8 per cent. reside with relatives or others out of public institutions. The proportion of all the insane is now 2·9 per 1000 of the population. If the proportion of the asylum inmates to the total insane is the same in Norway as it is in England, which is most improbable, the proportion of the insane to the population is in Norway scarcely more than a third of the proportion in England and Wales. In the Norwegian asylums the number of inmates discharged during last year (including the deaths) was 682, of which 229 were classed as recoveries, 209 as not recovered, 167 as improved, whilst the deaths numbered 71. The large proportion of "discharged not cured" seems to require explanation, as does the very low death-rate. The mean number of resident inmates in the asylums during the year was 1330, and the 71 deaths show a mortality of but 5·3 per cent., whereas the mean rate of mortality in England and Wales in the county and borough asylums in 1886 was equal to 10·4 per cent. Such figures as are furnished by this report appear to show that not only the proportion of the insane, but the rate of mortality among the insane, are considerably below the proportions prevailing in this country.

SIR JOSEPH HOOKER ON VACCINATION.

IF there is one subject which has been carefully studied, and on which there can be no two opinions, it is the advantage which results from the production of multiple vaccine vesicles. Since Marson first published the results of his observations at Highgate the experience of every small-pox hospital has taught the same story, that the duration of protection against small-pox is directly dependent upon the character of the vaccination, and especially upon the fact whether one or several vesicles were produced. Medical men will have heard with astonishment that Sir Joseph Hooker has recommended the production of one vesicle, because they are accustomed to regard his teaching in his own branch of science as deserving of confidence and respect. It was well that he should be fully answered. The letters of Dr. Buchanan and Mr. Claremont in *The Times*, and the admirable article which has appeared in that journal on this subject, have fully demonstrated the fallacy of Sir Joseph Hooker's contention. Greater efforts should be made to instruct the public upon matters which so closely concern their welfare. If Sir Joseph Hooker could be mistaken in regard to so assured a fact, how many more otherwise well-informed persons must there be who are in the same mental condition with regard to an operation to which every infant is required to submit. Much of the growth of feeling against vaccination is due to the misstatements of anti-vaccinationists remaining uncontradicted and unexplained. There is no question that medical men are too prone to regard as unimportant the frequent letters which appear discrediting vaccination, yet these have for years been exercising an influence upon many who accept their teaching, and who have come to consider vaccination in the light of a curse rather than a blessing. Our profession has duties beyond that of the treatment of disease, and the first is certainly that of teaching the public how it may be avoided.

LINGUAL "HEMIPLEGIA."

EXPERIMENTAL researches and clinical observations have conclusively proved that the lowest third of the ascending frontal convolution is concerned in the voluntary production of movements in the opposite side of the face and half of the tongue. Raymond and Artaud have collected six cases of cortical glossoplegia, or rather of divers troubles of lingual motility, due to cortical lesions of the ascending frontal convolutions, but in all the cases facial paralysis coexisted. Bernheim of Nancy has observed one case in which lingual hemiplegia was the only lesion. A young woman, aged twenty-three, was the subject of multiple sarcomatous tumours generalised throughout the body, and during the course of the illness, about one month before death, it was observed that the tongue on being protruded was thrust out to the right of the middle line. This lingual abnormality permitted the patient to swallow easily and also to articulate most words, but prevented the production of a whistling or

hissing sound. We have Bernheim's authority for stating that there were no other signs of dextral hemiplegia, unless a slight difference in the grasps in favour of the left be taken as sufficient evidence of the arm centre being involved. A fibro-plastic sarcoma into which hæmorrhage had occurred was found, measuring five or six millimetres broad and deep, and situated at the lower margin of the inferior extremity of the ascending frontal convolution, at the anterior aspect of this convolution, and six millimetres behind the sulcus which separates it from the third frontal gyrus.

THE COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

SINCE the meeting of the Sanitary Institute at Bolton a discussion has been going on in the public press on the question of the compulsory notification of infectious diseases. All seem agreed as to the necessity of some general measure by which such notification may be universally carried out, but there remains the important divergence of opinion as to the person who can properly be called upon to make the notification. On the one hand, we have a majority of medical officers of health contending that the system cannot be efficient unless the notification be made by the medical practitioner in attendance, and they allege that, where all medical men must act alike, there is no such thing as a patient discarding one doctor for another merely because he has acted as all his fellows would have been equally bound to act. Many also assure us, by the aid of statistics, that in several towns where the system is in vogue people do not, in consequence, avoid medical treatment. On the other hand, there is a large body of opinion amongst practitioners generally—and this includes some of those medical officers of health who combine sanitary work with the general practice of their profession—to the effect that the householder is the only person who can, without injustice, be required to make the needed notification. So long as this difference of opinion remains, it is clear that no general enactment on this subject is possible, and it will be well that matters should remain as they are, and that further experience should be obtained from such towns as now have, or may voluntarily seek, the needed compulsory powers. Apparently, those powers will only now be given on the duplicate system of requiring notification in all cases from both the medical practitioner and the householder, although where this system exists the former is, in practice, the only one from whom the information is demanded.

BREATHING SPACES AT OXFORD.

THE Oxford Local Board of Health have held a meeting to consider the report which was presented some time back on the question of the need for bye-laws as to open space about houses, and they have passed resolutions embodying a declaration that erroneous impressions have been communicated to the Local Government Board, and that they are quite prepared to amend their bye-laws provided they are not required to adopt the model code of the central authority. It is not clear on what point erroneous impressions have been brought about; for, from the description of house property which has lately been contained in the Oxford local press, it is clear that the inspectors of the Local Government Board in no way exaggerated the evils which they described; indeed, they were locally taken to task for having omitted to deal with the worst conditions prevailing in the city. That some remedy is needed, no one who knows Oxford can doubt; and we are glad to learn that the present inefficient bye-laws will be amended. We hope, however, that the amendments to be proposed will not be such that they cannot, in the interests of health, receive the needed Government sanction.

THE CROWN PRINCE OF GERMANY.

WE are glad to hear that his Imperial Highness continues to make satisfactory progress, no recurrence of the warty growth having taken place since the application of the electric cautery last June. The upper air passages, however, show a marked predisposition to catarrhal inflammation, and render it most necessary that his Imperial Highness should be in a warm climate, and, as far as possible, abstain from the use of the voice. It may be pointed out that, roughly speaking, there are two forms of chronic inflammation of the larynx: One in which the inflammatory process is confined to the mucous membrane, and gives rise to intermittent disphonia or loss of voice. This condition may last a whole lifetime without undergoing any further development. The second kind of inflammation, on the other hand, often causes interstitial changes, resulting in thickening, false excrescences, ulcerations, &c. Although the Crown Prince's affection belongs to the latter category, no unfavourable development has hitherto taken place, and the fact that his general health is very good makes it in the highest degree improbable that there should be any such untoward sequela. When Sir Morell Mackenzie left Bareno a few days ago, we understand that all was going on well, and there is every hope that, with time and care, the vocal function will be completely restored.

BRETONNEAU, TROUSSEAU, AND VELPEAU.

THE fame of the three men whose names are given above is world-wide. It is less known that they were each natives of Touraine, and it was to perpetuate this fact, and at the same time to erect a worthy memorial of them, that a movement was initiated in 1885 by the medical faculty of the Department of Indre et Loire. The result of their appeal to the medical profession and the public has been satisfactory, and on the 30th inst. the monument, which has been executed by two artists of Paris, MM. Sicard and Lalaux, will be unveiled in the Square de l'Archévêché of that city. The monument consists in an allegorical figure, holding in one hand the symbolic shield with three towers, and with the other crowning her three sons, who are represented in medallions on the top of the pedestal. The portraits are said to be excellent. The ceremony of unveiling will be accompanied by three speeches in honour of each of the scientists. Professor Duclos of Tours will speak on Bretonneau, Professor Guyon of Paris on Velpeau, and Professor Peter of Paris on Trousseau. It may be added that Bretonneau was born at St. Georges-du-Cher in 1790, held for a long time the office of senior physician at the Tours Hospital, and died at Passy in 1862. Velpeau was born at Brédes (Indre et Loire) in 1795, and died at Paris in 1867, having been successively on the staff of St. Louis, St. Antoine, and La Pitié Hospitals. Trousseau was born at Tours in 1801, and became physician to the Hôtel Dieu, Paris, in which city he died in 1867.

THE URINE IN TABES DORSALIS.

THE following facts are set forth by MM. Livon and Alexais as the result of a series of researches on the urine of patients affected with an apyrexial disease of the cord—namely, tabes dorsalis: A tendency to diminution of the urea eliminated in the twenty-four hours; a diminution in the total daily discharge of phosphoric acid, with a tendency to proportional augmentation of the discharge of earthy phosphates; a great variation in the elimination of chlorine, with a bias in favour of hyperchloruria. Intravenous injections of tabetic urines appear to be sufficiently toxic in their action, since it has been found that from twelve to twenty-four cubic centimetres of urine per kilogramme of body weight of animals was sufficient to kill dogs.

CALISTHENICS IN LONDON BOARD SCHOOLS.

IT is highly characteristic of the backward state of public thought and feeling in respect of matters of hygiene that in the reports of the Commissioners appointed to examine into the working of the Elementary Education Acts, questions relating to the sanitary conditions and physical regimen to which school children are subjected should obtain only a very inconsiderable place. The case of starved or half-starved children has indeed forced itself into notice; but short of this, and saving only some discussion of the subject of over-pressure, points bearing upon the health of the vast school-attending community have scarcely received any attention whatever at the sittings of the Committee. Even more conspicuous than its omissions have been the shortcomings of the Committee in this respect when it has set its hand to the work. The third report, just issued, contains, for example, the evidence given by the lady who is engaged by the London School Board as superintendent of the girls' and infants' departments, and she was able to give the Commissioners some very interesting facts relating to her work in that capacity. Thus we learn that there are at present 1200 teachers within the jurisdiction of the London Board who are either trained or under training, and that physical education has been introduced into upwards of 250 schools. Furthermore, the work is being vigorously pressed on, and it is anticipated that within a period of five years there will not be a teacher who will not have received special physical training. This is as it should be, and in this respect at least the metropolis sets a good example to other urban School Board districts all over the country. The Commissioners, however, did not interrogate their witness as to the nature of the exercises in which she practises the children. It is quite needless to say that upon this will depend the whole value of the physical instruction imparted. It would seem that Ling's system affords the basis upon which the London teachers work, but it does not at all appear how much of this method they are practically able to embody in their scheme. The only question bearing upon this important matter was: "Is it a very important part that is omitted?" Answer: "The most important part, and the one which really develops the child best, is not omitted. The part which we practise with the children is the fundamental and the most necessary part." Probably that is so, but it would have been interesting to have fuller details from which an independent judgment might be formed.

SMALL-POX IN RIO DE JANEIRO.

IT is useful now and then to call attention to the ravages of small-pox in communities in which vaccination, not being compulsory, is doubtlessly much neglected among the poorer and lower classes. It appears from a monthly bulletin of mortality in the city of Rio de Janeiro for June last that out of 1170 deaths from all causes (excluding still-born) no fewer than 291 resulted from small-pox. The estimated population of the city is given as 400,000, and it may therefore be calculated that the annual death-rate from this disease in Rio during last June was equal to 8·7 per 1000. The same return shows that during the second quarter of this year 622 deaths from small-pox occurred in Rio, giving an annual rate for the three months of 6·2 per 1000. As evidence of the probable comparative neglect of infant vaccination, it may be pointed out that of the 291 deaths from small-pox in Rio in June last, 121, or 42 per cent., were of children under five years of age; whereas in England and Wales in the five years 1881-85 the proportion of deaths from small-pox occurring under five years of age, which has steadily declined with the increase of infant vaccination, did not exceed 2·3 per cent., including the cases of infants under vaccination age. With reference to this return from Rio, it may be remarked that the 1170 deaths in the city during last June were equal to an annual rate of 35·1 per 1000 of the estimated population, showing that the rate from all causes other than small-pox was 26·4. It should at the same time be stated that, with the exception of malarial fevers, which caused 70 deaths during the month, the rate of mortality from other forms of zymotic disease was not excessive. It appears that 188, or 16 per cent., of the deaths were of infants under one year of age, but the return contains no data from which the rate of infant mortality can be calculated.

THE PICTORIAL ARTS OF JAPAN.

WE learn from the *Japanese Weekly Mail* that His Majesty the Emperor of Japan has been graciously pleased to accept a copy of Mr. W. Anderson's work on "The Pictorial Arts of Japan." Many of our readers will know that Mr. W. Anderson spent several years in Japan, where he obtained a thorough knowledge of its history and studied the art of the country in all its forms. The outcome of this study appears in the work mentioned, and also in the splendid collection of Japanese art, with its catalogue, now in the British Museum. It is difficult to speak in too high terms of the excellence and artistic beauty of this work, and the reviews of it which have appeared bestow on it unstinting praise and admiration. This work, produced in the leisure of half a score of years by one engaged in the busy practice of his profession as a surgeon, is a proof of great perseverance and artistic ability, reflecting honour not only on the author, but also on the medical profession.

A NEW ELECTRO-GENERATOR.

AN important advance in the direction of producing electricity from heat is just announced from America. The inventor is the inexhaustible Mr. Edison, and his invention appears to have the merit of extreme simplicity and adaptability to a great variety of circumstances. The principle is, as often happens, so simple, that one wonders at its not having been thought out long ago. It is well known that the magnetic properties of iron are dependent, among other things, upon the temperature, and that any change in this latter involves corresponding change in the magnetic conditions of the metal. Furthermore, the effect of a change in the magnetic condition of an iron core upon the play of electric currents in its vicinity has been one of the main branches of electrical science since the time of Faraday, and is illustrated in every magneto-electric machine, of which the largest form is the gigantic "dynamo," and a smaller and more familiar form, the ordinary medical electrical machine, working with a handle, and yielding a current in quantity and tension suitable to ordinary medical purposes. In both these classes of electrical machine the current is induced in a coil of wire which surrounds an iron core, the magnetic condition of which is caused to vary rapidly by rotating a magnetic armature in its "field." Every change of magnetic potential in the core induces a current in the surrounding coil, and hence the observed results. Mr. Edison's invention dispenses with the armature altogether, and produces the desired magnetic change in the core by altering its temperature. Alternately heating and cooling his cores, which for this purpose are made hollow, he produces electrical currents in the coils analogous in every way to those which result from bringing the core under the temporary influence of a magnet. It is claimed for this invention that it will enormously simplify the production of electricity from fuel, since it will render wholly unnecessary the mechanism which has at present to be interposed between the source of heat and the magnetic core which is

to be influenced by its means. The heat will act directly on the core, and the steam or gas engine will be wanted no longer. If fuller details should justify the very rose-hued picture which has been transmitted across the Atlantic, there can be no doubt that this will prove to be an invention of incalculable value. By no means the smallest of its advantages would be the facility and economy with which it would enable us to subdivide motive power. There are numberless purposes subservient both to sanitation and convenience which demand an independent and inexpensive motor of small power. This is, indeed, one of the most pressing requirements of the day. If Mr. Edison can supply it, he will indeed deserve well of his generation, and of posterity to boot. But it is too early yet to make sure that we have here exactly what we want. The whole subject of thermo-magnetism is at present very obscure, and our knowledge, such as it is, appears to indicate that certain high critical temperatures, at least in the case of iron and most other metals, are required for the manifestation of its most conspicuous and probably most serviceable phenomena. If that is so, it may well prove that this, like some others of Mr. Edison's very ingenious inventions, is but ill adapted for any but laboratory use.

POST-GRADUATE COURSE AT CHARING-CROSS HOSPITAL.

THIS course has had a most encouraging commencement, which augurs well for its future usefulness and success. On Friday last the first lecture was delivered by Dr. Julius Pollock, F.R.C.P. (senior physician to the hospital), on the subject of Rheumatism. There were present upwards of eighty practitioners who have joined the class, and, judging by the interest they evinced by taking copious notes of the lecture, they heartily appreciated the lecturer's efforts. The vast majority of the members are men in large and successful practice, many of them University graduates, Fellows of the Colleges, or holding high positions in the Army Medical Service. Since the lecture about a dozen more have applied for admission, and the roll will soon contain one hundred names. After the lecture Dr. Pollock proceeded to the wards, and gave clinical lectures on several instructive cases. The second lecture will be delivered to-day (Friday), by Mr. Richard Barwell, F.R.C.S., on the subject of Lateral Curvature, when several typical cases will be shown.

DR. JOSEPH ROGERS.

OUR readers will be glad to learn that Dr. Joseph Rogers has so far recovered from his severe illness as to be able to use his pen. He intends to write his experiences of workhouses, which extended over a period of twenty-six years. The result ought to be interesting. Dr. Rogers's recovery is in itself a fact of interest. His condition was extreme, with heart disease, anasarca, and pleurisy. On two occasions, on the advice of Dr. Bristowe, he was aspirated with much relief.

DUST COLLECTION AT KENSAL TOWN.

MR. G. R. STRACHAN, surveyor to the Chelsea Vestry, has prepared a report showing some of the difficulties which local authorities have to face in the collection of house refuse. The contractor, having been requested to call at every house on his rounds, met with 1522 houses out of 2548 visited in the six days August 10th to August 16th where the occupants refused to allow dust to be removed. In the week ending August 23rd the number of houses visited was 3180, and at 2549 of these the dust was refused, some of the refusals being at the same houses where refusal was met with in the previous week. Thus a large proportion of householders do not want either weekly or fortnightly removal, and this even during the month of August. Mr. Strachan urges that to meet this state of things small zinc pails capable of holding only about two cubic feet of contents should replace the old brick dustbin, which is both a nuisance and inconvenient for scavenging, and that a few persons should be proceeded against under Section 126 of the Metropolis Management Act, 1855, for refusing to allow their dust to be removed.

SIR WILLIAM GULL.

WE regret to learn by telegram from Killiecrankie that Sir William Gull, Bart., is suffering from paralysis of the right side. There has been no loss of consciousness, and we are glad to be able to announce a gradual improvement in his condition.

THE IRISH COLLEGE OF SURGEONS AND APOTHECARIES' HALL.

AN abstract of the regulations controlling the conjoint examinations for the diplomas of the Royal College of Surgeons and the Apothecaries' Hall of Ireland has just been published. These bodies, as we have already intimated, are now for the first time about to hold their examinations in conjunction, by which means students can, by one series of examinations, obtain the two qualifications, and will thus be entitled to be enrolled in the Medical Register, and to enjoy all the privileges of practice in Medicine, Surgery, and Midwifery.

CHOLERA INTELLIGENCE.

THE cholera returns from Sicily fortunately indicate a decided abatement of the epidemic. Data from Messina come irregularly, and the only recent records are as to eighty fresh attacks and twenty-eight deaths between October 3rd and 8th; three deaths occurring during the same period at Palermo. No further cholera news comes from the mainland of the kingdom of Italy. From Malta there is also a history of a general diminution in the disease. It is still mainly prevalent amongst the natives in the inland villages where no such British military administration prevails as in the fortified places. The outbreak is, however, not at an end, for thirty-seven deaths occurred in the week ending October 10th.

CREOLIN v. CARBOLIC ACID.

DR. E. VON ESMARCH, assistant in the Royal Hygienic Institute of Berlin, has made a series of experiments with creolin, a new disinfectant, which has been highly spoken of by Professor Fröhner of the new Veterinary School of Berlin. Dr. von Esmarch made a number of comparative observations with carbolic acid on the disinfecting, deodorising, and antiseptic properties of creolin. Amongst other observations, he noted the effects of the two substances on fluids containing cholera, typhus, and anthrax bacilli. As a rule, creolin appeared to be much the more active. Similarly the offensive smell of various putrefying liquids was controlled much more readily by creolin than by carbolic acid. Creolin soap, too, showed itself more active as a disinfectant than corrosive sublimate soap.

EPIDEMICS ABROAD.

MEDICAL returns from Simla state that there were 30,780 deaths from cholera in the North-West Provinces during August; the disease is now normal. The yellow fever epidemic at Tampa, Florida, is reported to be abating. The recent outbreak of small-pox at Launceston, Tasmania, has been completely controlled. All the cases have been isolated, and no doubt is now felt that the disease will be effectually subdued in a short time.

ICTERUS NEONATORUM.

SILBERMANN (*Arch. f. Kinderheilk.*, Bd. 8, cited in *Fortschr. d. Med.*, No. 19) has studied the subject of icterus neonatorum, and arrived at the conclusion that it is a jaundice of reabsorption and of hepatogenous nature. The bile-stasis occurs in the bile capillaries and interlobular ducts, which are compressed by the dilated branches of the portal vein and blood-capillaries of the liver. The congestion of these vessels is brought about by the changes in the hepatic circulation that arise soon after birth, which is one effect of a general change of the blood-plasma. This blood change is a sort of fermentation depending upon the destruction of red corpuscles shortly after birth. The icterus is more marked in the more feeble infant, for in it the blood changes are more considerable than in the strong. The destruction of red corpuscles and their accumulation in the hepatic vessels afford material for the formation of bile in excess.

GUY'S HOSPITAL: TWO HUNDRED VACANT BEDS.

THE authorities of Guy's have only, so far, got £78,000 of the £100,000 for which they appealed last Christmas. Surely before Christmas comes they will have received the rest. One wonders how these 200 vacant beds, hitherto maintained by a benefactor dead for 100 years, do not haunt the dreams of our present millionaires, and beget a determination to fill every one of them.

ANTIFEBRIN AS A DISINFECTANT.

DR. S. A. VAN LEER has been prosecuting a number of researches in the Hygienic Laboratory at Groningen on the antiseptic properties of antifebrin (acetanilide). When added to milk, so as to saturate it, acetanilide prevents it from turning sour; similarly, albumen can be kept from becoming putrid. It does not, however, seem a suitable substance for dressing wounds, as it does not easily dissolve or become moist, and irritates the surface of wounds. Dr. van Leer examined the effects of solutions of antifebrin of various strengths on several kinds of bacilli, and found that the development of many of them was not by this means prevented; consequently he does not think that the suggestion of Leube to employ antifebrin for surgical dressings is likely to prove of any advantage.

FOREIGN UNIVERSITY INTELLIGENCE.

Bucharest. — Dr. Babes, Professor of Histology and Bacteriology in Buda-Pesth, accepted some time ago the invitation to a similar chair in Bucharest, he being a Roumanian by birth. The authorities seem alive to the importance of having secured so illustrious an observer, and propose to give him £1000 a year, besides which an institute is to be built, which when completed will have cost £10,000.

Kasan.—Dr. Adamyk, Professor of Ophthalmology, is about to retire. Dr. Michel Reich, a well-known ophthalmic surgeon from the Caucasus, is likely to be appointed in his place.

Kharkoff.—The Professorship of Forensic Medicine, vacant by the transference of Professor Anrep to St. Petersburg, has been filled up by the appointment of Dr. Patenko, *privat-docent* in the Military Medical Academy, St. Petersburg.

Kieff.—Dr. W. Podvinsotski has been appointed Lecturer in General Pathology in succession to Professor Chrzonszczewski.

Lemberg.—This University has no Medical Faculty, but a decree has just been issued by the Austrian Minister of Education establishing Professorships of Anatomy and Physiology in connexion with the Philosophical Faculty. This step is looked upon as precursory to the establishment of a Medical Faculty.

Vienna.—Professor Billroth, being quite restored to health, has resumed his ordinary duties.

THE MEDICAL SOCIETIES.

THE Medical Society will hold its first meeting on Monday next, October 17th, and the Royal Medical and Chirurgical Society on Tuesday, October 25th. We announced the first meetings of the other Societies in our last week's issue. The Clinical commences to-night (Friday), and the Pathological on Tuesday next.

ON the 12th inst., at the instance of the Mansion House Council on the Dwellings of the Poor, a public inquiry into the sanitary condition of Bethnal Green was opened by Mr. D. Cubitt Nichols and Mr. Shirley F. Murphy, the Commissioners appointed by the Home Secretary. After a short discussion with the counsel engaged in the case, the inquiry was adjourned for the purpose of an inspection of the streets alleged to be in an insanitary state, which the Commissioners expected would occupy at least a week.

DR. LÄNGER, *primararzt* of the great Vienna Hospital, after a somewhat unpleasant interview with Prof. Boehm, the newly appointed director of the hospital, took a large dose of morphia with the intention apparently of committing suicide. He was, however, promptly treated by the performance of tracheotomy and the mechanical inflation of the lungs through the opening. By this means his life has been saved. Dr. Länger, who is greatly respected, has been for some time past subject to melancholia.

THE Italian War Office, through its medico-statistical officer, Colonel Pecco, gives the following returns of the health of the army throughout the peninsula during 1885. In the military hospitals there were under treatment 160,848 men. The deaths were 2005. The mean mortality was 10·30 per 1000. The losses of recruits amounted to 2873. The number of those sent home on sick leave was 7392.

THE Aberdeen University Court, at a meeting held on Oct. 7th, appointed the following gentlemen to be extra-professorial examiners for medical graduation: Dr. J. Macdonald Brown (Edinburgh), Dr. W. D. Halliburton (London), Dr. David Lowson (Hull), Dr. Robert W. Philip, A.M. (Edinburgh), Dr. Wm. Robert Smith (London), and Dr. F. Buchanan White (Perth).

IN connexion with the Medical Society, University College, London, Sir William Roberts, M.D., F.R.S., will deliver an address in the Botanical Theatre of this College on Wednesday Oct. 19th, the subject being the Effects of Alcohol considered from the points of view of History and Natural History.

THE *Gazette* of Tuesday last announces that the Queen has been pleased to appoint William Scovell Savory, F.R.S., President of the Royal College of Surgeons of England, and surgeon to St. Bartholomew's Hospital, to be Surgeon Extraordinary to Her Majesty, in the room of Richard Quain, deceased.

AT the annual meeting of the Pharmaceutical Society of Ireland, held on Monday, Mr. James E. Brunker, M.A., was elected President, in the room of Mr. W. N. Allen, resigned. Mr. G. Lane M'Cormack was elected to a seat on the Council, vacated by the retirement of Dr. Aquilla Smith.

WE regret to have to record the somewhat sudden death, on the 7th inst., of Mr. William Trotter, the foreman printer of the advertising department of this journal. For over forty-one years Mr. Trotter had been most faithful and devoted in his service to the proprietors of THE LANCET.

Pharmacology and Therapeutics.

SACCHARIN.

THE saccharin tabloids of Burroughs, Wellcome, and Co. contain half a grain each of this new sweetening agent, which is doubtless destined to play an important *rôle* in the treatment of disease in the future. The tabloids are very convenient in form, are certainly efficient sweetening agents, and have no reducing action on Fehling's solution, thereby showing the absence of sugar. Reynolds and Branson's compressed discs of saccharin, besides containing a little carbonate of soda, have some grains of milk sugar in their composition. These reduce Fehling's solution rapidly.

EUCALINUM.

The new antiseptic poultice matrix introduced by Messrs. Rocke Tomsitt and Co. is decidedly a step in the right direction. Many practitioners object to poultices on the ground of their uncleanliness in the aseptic sense of that term, and there is sometimes ground for fear lest in dressing open wounds with poultices we may introduce pathogenic organisms. Eucalinum would tend to prevent the growth and development of such germs, whilst at the same time the added eucalyptol mitigates the sour smell which is frequently developed during the application of ordinary linseed and bread poultices.

COCA IN GASTRALGIA.

M. Ardenne, of Toulouse, states that he has found the extract of coca of great benefit in relieving gastric pain. He gives two drachms and a half during the twenty-four hours. If there is no anatomical lesion, the relief is rapid and complete. If, however, the mucous membrane is diseased, the relief is partial and temporary only. Similar results have been obtained by M. Cunéo with cocaine in cases of gastralgia with vomiting, even in those of uterine origin.

KAIRIN, THALLIN, AND ALLIED BODIES.

Kairin lowers the temperature by diminishing the production of heat, and by augmenting the radiation of the same. Its deleterious action on the red blood discs and its lowering action on the heart constitute its chief dangers. Thallin lowers the temperature by the same means, and has the same inconveniences. Hydrochinone lowers the temperature by augmenting the radiation of heat from the dilated vessels. Resorcin equally dilates the vessels, and exercises a tonic action on the heart. Antipyrin perhaps raises the blood pressure slightly, but leaves intact the red globules of the blood, whilst lowering the temperature. These are the conclusions of G. Beyer, and may be found *in extenso* in the *Deutsche Med. Zeitung*, Aug. 11th.

NAPHTHALIN IN DIARRHŒA.

Dr. Lunin, of the Elizabeth Children's Hospital in St. Petersburg, following up the remarks of Rossbach at the Wiesbaden Congress in 1884 on the value of pure naphthalin in affections of the intestinal tract, has given this drug in quantities of 7½ to 30 grains per diem, in the form of emulsion with castor oil, to children between one and five years of age with diarrhœa, with excellent results. Dr. Lunin gives, in a recent issue of the *Vrach*, a short account of ten cases in which this treatment was followed by great improvement or complete cure. He remarks that cases sometimes are met with in which naphthalin has no effect at all, and here recourse must be had to other drugs.

STRYCHNINE IN ALCOHOLISM.

Dr. Dobronravoff, who has treated a number of cases of various forms of alcoholism by hypodermic injections of strychnine, as recommended by some other Russian observers (see THE LANCET, 1886, p. 733), speaks as highly as they do of its effects. He began with the one-hundredth of a grain twice a day, and increased this dose cautiously to one-fiftieth and one-thirtieth; in one very grave case he gave one-fifteenth. He found that by this means a quiet sleep free from visions was induced in acute cases, and, in chronic forms, nausea, vomiting, and loss of appetite rapidly gave way. No evil effects could in any case be traced to the use of the drug. The total quantity given varied from a tenth to a third of a grain.

COLLODION.

The silky fibre or silk-cotton obtained from the pods of the Eriodendron anfractuosum, a plant common both in the East and West Indies, has been found to make the finest collodion possible for surgical purposes.

SALOL.

As the outcome of an examination of the results obtained by various doctors who have employed salol to reduce the temperature of many diseases, including all forms of rheumatism, typhoid fever, pneumonia, phthisis, and pleurisy, M. Ricklin concludes that it has no advantage over salicylic acid or antipyrin.

EPHEDRINE.

Chlorhydrate of Ephedrine is a new mydriatic alkaloid obtained from Ephedra vulgaris by M. Kinnossuke Minra. It has to be employed in a solution ten times more concentrated than homatropine, but it is much less costly. It does not paralyse the accommodation for near vision,

AMYLENE HYDRATE is the latest addition to the list of hypnotics; in activity it stands between chloral hydrate and paraldehyde, and is less objectionable than the latter.

PILOCARPINE has been synthetically prepared.

BROMIDE OF ETHYL is advocated by Dr. Pauschinger as an anæsthetic in minor surgical operations; it is administered in the same way as chloroform.

LITHIUM SALICYLATE is frequently contaminated with the sodium salt.

The British and Colonial Druggist (vol. xii., Nos. 5, 6, and 7) is publishing a useful table of the new antiseptic, antipyretic, and soporific remedies, drawn up by H. Helbing, apothecary to the German Hospital.

HEALTH OF THE ARMY.

No. III.

THE number of recruits medically inspected in 1885 was 72,249; and of these, 28,933 were rejected, being in the ratio of 400·5 per 1000. Of these, 57,898 were examined by army medical officers, with a rejection in the ratio of 400 per 1000, and 14,351 by civil medical practitioners. Of the latter, 198 per 1000 were rejected on primary inspection, and 185 per 1000 on secondary inspection by army medical officers, or a total of 383 per 1000. Of the recruits passed into the service, 278 were discharged as unfit within three months of enlistment, or 6·4 per 1000 of those originally found fit. The ratio of 400·5 per 1000, however, does not correctly show the proportion found unfit on medical grounds, as a certain number of recruits are included who were rejected as being "under height," "over height," and "apparent age not in accordance with general order." These are obviously military and not medical causes of rejection, and amounted to 38·6 per 1000 inspected. Deducting these and the men discharged, as above noted, under three months' service, the ratio rejected was 358 per 1000, or 10 per 1000 less than in the preceding year. The most frequent cause of rejection was "under chest measurement," amounting to one-fourth of the whole; "under weight (muscular tenuity and debility)" was assigned in one-eighth and "defective vision" in one-tenth of the rejections. The ratio of rejections was highest for infantry regiments—404 per 1000 inspected,—and lowest for the Foot Guards—314 per 1000. The proportion of recruits furnished by England and Wales was 757, by Scotland 99, by Ireland 134, and by British colonies and foreign countries 10 per 1000. The proportion of recruits between eighteen and twenty years of age was 582 per 1000—exactly the same as in the preceding year; but of these the number between eighteen and nineteen was rather higher than in 1884. The chest measurements of the recruits compare unfavourably with the preceding year, the proportion under 33 inches having been 243, as against 219, per 1000; the weight also of those inspected by army medical officers shows a reduction, the proportion under 130 lb. having been 627, as compared with 607, per 1000. There would therefore appear to have been a deterioration in the physique of the recruits for the year. There was an increase, compared with the preceding year, in the proportion of labourers and of manufacturing artisans, and a reduction in the other classes of occupations from

which recruits are drawn. As regards education, there was a decrease of 28 per 1000 in the numbers returned as well educated, and of 23 per 1000 in those unable to read, and an increase of 36 in those able to read and write, and of 15 in those able to read only. Notwithstanding the influence of board schools, there is still a sufficient number of uneducated and very imperfectly educated recruits to furnish work for the army schoolmaster. Of the recruits found fit, 922 per 1000 bore marks of vaccination, 23 of small-pox, and 55 had no satisfactory marks of either. The vaccination returns seem to be imperfect, as only 634 primary vaccinations are reported, while the number of unprotected recruits was 2372. Of the primary vaccinations, the proportion of successful cases was 577 per 1000; of 35,629 revaccinations, 466 per 1000 were successful. No information is given regarding the vaccination, and its results, of 7053 of the recruits. The value of vaccination and revaccination is shown by the fact that in a protected force of 177,928 men serving at home and abroad, only 88 cases of small-pox with 7 deaths occurred during the year; of these, 52 cases and 4 deaths were in the force employed in Egypt, so that in the rest of the force the proportion was only 21 cases and 1·78 deaths in 100,000 men.

There are a number of interesting papers in the appendix to the report. The first of these is a medical history of the frontier field force on active service in the Soudan from Nov. 27th, 1885, to Jan. 27th, 1886, by Surgeon-Major W. S. Price. The force consisted of 264 officers and 5873 non-commissioned officers and men. During the two months included in the report there were 33 admissions and 3 deaths of officers, 2 of the deaths being from wounds received in action. Among the non-commissioned officers and men, there were 1052 cases and 36 deaths, being in the *annual* ratio of 1147 and 39·26 per 1000 of strength. Nine of the deaths, 7 in and 2 out of hospital, were from injuries received in action. Upwards of one-third of the admissions into hospital were from fevers and dysentery. Enteric fever gave rise to 95 admissions and 17 deaths, being in the annual ratio of 104 and 18·54 respectively, and dysentery to 127 cases and 4 deaths, or 138 and 4·36 per 1000. No definite cause could be traced in the cases of enteric fever. On Dec. 30th the force attacked the enemy at Giniss on the right bank of the river, and completely dispersed them after a brief fight. Of the British troops, 1 officer was killed and 1 wounded, and 20 non-commissioned officers and men were wounded. Of the Egyptian troops, 1 officer and 4 men were killed and 3 officers and 11 men wounded. "The Egyptian troops behaved very well throughout." During the two months included in this report there were 3 officers and 43 men admitted on account of wounds received in action, being in the annual ratio of 73 per 1000 of strength of officers and 47 of men. One officer and 2 men were killed in action, and 1 officer and 7 men died in hospital from wounds received in action, all inflicted by firearms. Two of the deaths in action were from wounds of the head, and one of the chest; 2 of those in hospital were from wounds of the head, 4 from wounds of the chest, and 1 from a wound of the abdomen. Details of the fatal cases are given in the report.

In a report on the Abu Fatma Hospital and line of communication with the Nile Expedition, 1884-85, Surgeon-Major L. Corban gives an interesting account of the arrangements made for the treatment of the sick and wounded, and for the despatch of convoys of invalids down the river to Wady Halfa. During the first five months of 1885 there were 83 officers treated, of whom 3 died, and 931 non-commissioned officers and men, of whom 25 died. The most fatal disease was enteric fever, of which there were 164 cases with 15 deaths; 129 cases of wounds were admitted, of which 2 died; 119 of dysentery, with 3 deaths. The arrangements both of the hospital and of the transport appear to have been most satisfactory. Surgeon-Major Corban reports that "the conduct of the Medical Staff Corps was excellent. Though native spirit could be purchased there was no drunkenness and only a few minor offences. Their duties, especially at Abu Fatma, working through the long trying summer months, were of a most arduous and difficult kind. The high rate of mortality and invaliding among officers and men speaks for itself. Four medical officers were invalided from the working at Abu Fatma; 2 surgeons and 7 orderlies died at their post, and are buried at this station, victims to hardship and exposure in the climate of the Soudan."

There is yet another paper connected with the health of the troops in Egypt, a report by Surgeon J. Boulger of a series of cases of small-pox among the British troops in Cairo from January to October, 1885. He gives details of 50 cases, of which 4 died. The men bore marks of vaccination, and 39 had been revaccinated with various results. The 4 fatal cases had been revaccinated, 2 unsuccessfully and 2 modified. All the mild cases, 21 in number, had good cicatrices, and "the severe cases, 12 in number, had for the most part but very indifferent marks, though some amongst them showed well depressed scars."

Brigade-Surgeon A. F. S. Clarke has furnished an excellent report on the outbreak of diphtheria in the neighbourhood of the Royal Military College at Sandhurst in October and November last. The disease prevailed in the villages of Yorktown, Camberley, and in adjacent parts of Frimley parish, chiefly among the families and domestic servants of officers, retired officers, and civilians living in these places, and therefore in close proximity to the Royal Military and Staff Colleges, but no case occurred in either of these institutions. There were altogether 88 cases between Oct. 11th and Nov. 14th, in a population of something under 4000. Of these, 18 died, 3 of them after removal from the locality. The history of the outbreak is preceded by a short but clear description of the locality in which it occurred: its soil, the health of the district, the drainage of the villages, and the water supply. The first cases occurred on Oct. 11th in two children of an officer living in Yorktown, and the wife of an officer of the Royal Military College living in "The Terrace" of the College. These were followed by many others in houses at distances varying from a quarter to two and three miles from one another, and without regularity in the attack. During the first week there were upwards of 60 cases and 10 deaths. The disease began to decline at the end of a fortnight, and the last death was registered on Nov. 10th. "The outbreak, though short, was very severe, attacking more than 40 houses of the better class, the poorer community escaping almost entirely; their cases were milder, only one death occurred among them, with the exception of a domestic servant in the house of a lady whose child was attacked." An exhaustive inquiry into the causes of the epidemic led irresistibly to the conclusion that it arose from infected milk. "Every house and even cottage where diphtheria had occurred had obtained their milk from one dairy farm..... Further investigation very shortly justified us in coming to the conclusion that infected milk was the *sole* cause of this outbreak." Not only were the whole of the infected houses supplied from this dairy, but in four families which did not take in this milk a case in each occurred which was clearly traced to the persons affected having drunk some of it in houses which were so supplied. The question then arose, How did the milk itself become infected? And after a very careful inquiry, the medical officers came to the conclusion that it had been caused by the use of "dangerously polluted water" in cleaning the dairy utensils. "Brushing aside, then, other theories as to the milk infection in this outbreak, we have an established fact that the water used for washing the milkcans was 'dangerously impure and polluted with sewage;' it is also just possible that the milk *may* have been diluted with this water by some servant or *employé* of the dairy." It is remarkable that cases of diphtheria occurred in thirty-two out of forty-three houses of the better classes, while there were only 5 cases in fifty cottages and artisans' houses, all supplied with milk from the same dairy. Brigade Surgeon Clark thinks this difference may be accounted for "by the fact that the poor man buys daily only a small quantity—a pennyworth or less — of milk, uses a portion in his tea, and the rest is made into a pudding for the children; they, too, generally, buy skimmed milk, which has often been scalded." The measures adopted, and fortunately with success, to present the spread of the disease to the college, were: "Officers and *employés* who had cases in their families were rigidly 'quarantined;' suspicious sore throats were at once isolated; strict attention was paid to all sanitary matters; milk and drinking water were boiled; servants were warned to report at once any illness in their families; social gatherings bringing a large concourse of people to the village were interdicted; the sanitary condition of all the buildings was carefully examined, defects pointed out, and as far as possible remedied." A good map illustrating the area of the diphtheria is attached to the report, which is of great interest and most creditable to its author, Brigade Surgeon Clarke.

In a note appended to some remarks on beri-beri, as it occurs in the Straits Settlements, by Surgeon A. A. Lyle, he gives some details of an outbreak of this disease, in the

criminal prison at Penang in 1882. It appears to have been introduced by some prisoners who arrived from Singapore by steamer, and of whom 36 out of 186 were found to be suffering from it. Although every precaution was taken and a special diet was adopted for all the prisoners, the disease spread until only 22 remained unaffected; 27 of the cases died. Among the Penang prisoners, 240 in number, 61 cases occurred, of which 12 proved fatal. Mr. Lyle believes the disease to have been propagated through excreta, but there seems some reason to connect its appearance with an inadequate supply of food, and that of an unsatisfactory character.

There is a careful and interesting paper by Surgeon R. H. Frith, on "The Relation of Malarial to Physical Causes, at Meean Meer, Punjaub, with an analysis of soil and water, and a *résumé* of meteorological observations." It would be impossible in the space at our disposal to give a useful summary of this paper, but the conclusions at which the author has arrived are thus stated:—"Malarial fevers are at their maximum in Meean Meer in September and October; this period of their greatest prevalence appearing, from an examination of the meteorological data, to be simultaneous with the termination of (1) maximum soil temperature; (2) minimum daily variation of soil temperature; (3) maximum rainfall; (4) maximum of CO_2 in the soil air; (5) maximum of humidity; (6) minimum amount of ozone in the air. The subsoil water level, the barometric pressure, and the air temperature appear from the same data to have little, or, if any, only a secondary, influence upon malarial production. . . . . The sum of our knowledge regarding the nature of malaria is very limited. We understand it merely as a subtle and unknown agent, a cause of disease known only by its effects, a product of continuous heat and moisture upon vegetable organic matter."

The usual list of operations performed at Netley Hospital during the year, with notes of the more important cases, some of which are of considerable interest, is furnished by Brigade Surgeon C. H. Y. Goodwin, the assistant professor of military surgery. We regret again to observe the Department Report issued without any contribution from the medical branch of the hospital. Surely there must, in such an establishment, be an opportunity of collecting valuable information which ought to be utilised for the benefit of the service and of the profession. We fear that the state of Professor De Chaumont's health is but too good a reason for the absence of any special sanitary communication from him.

TWELFTH CONGRESS OF THE ITALIAN MEDICAL ASSOCIATION.

CONGRESSES beget congresses. Indeed, especially abroad, they are multiplying so fast that anything like a detailed account of their proceedings must imply a readjustment of the hitherto essential conditions of existence—time and space. At Pavia, for example, the twelfth meeting of the Italian Medical Association on the 19th ult. did not close its highly interesting discussions till it had founded and organised a branch association—the Società Idrologica Nazionale (National Hydrological Society) for promoting scientific water-analysis throughout the peninsula and for obtaining Government assistance in developing its resources in mineral waters. Both these objects are in themselves highly commendable, and the latter, if attained, will do more for the prosperity of the country than any means hitherto devised for evoking its natural wealth. Italy only wants capital and enterprise to attract within her frontier thousands of the *habitués* of spas and health resorts who have long been a rich source of revenue to Germany, Switzerland, Austria, and France. The facts elicited at Pavia in the discussion that preceded the foundation of the Società Idrologica spoke eloquently for the fruitful work before it, and for the remunerative harvest it must confer on the country. Its first place of meeting will be at Bologna, some time to be yet fixed in the autumn of 1888, and its president will be Professor Chiminelli, director of the establishment at Recoaro, and its vice-president, Dr Vinai of the well-known institution at Andorno. Of the Pavia Congress it will suffice to say that in the department of surgery its papers and discussions were of exceptional interest, Drs. Bassini, Ceci, Tansini, De Paoli, and Ferrari dividing the honours of the section. De Paoli of Turin, in the course of an exhaustive communication on goitre, pointed out that the most approved modes of surgical interference with the malady were really due to Dr. Porta of Pavia, their original author and practitioner, and not, as is generally believed, to the Germans. The medico-chirurgical exposition was a great adjunct to the interest and efficiency of the Congress—the Society of the Red Cross, the Italian War Office, and many prominent firms in Italy and abroad having contributed novel and valuable additions to the *matériel* of the healing art. From the official report of the proceedings, now printing, the professional public will gather their scientific results, which by universal admission marked a signal advance on those of the previous congresses of the Association. Professor Bottini brought the meeting to a close in a congratulatory address, and the *rendezvous* for the thirteenth Congress was announced to be Padua.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF THE INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

The Sanitary State of Oswaldtwistle, by Mr. J. SPEAR. This district lies at the northern extremity of the Lancashire coal fields, and has an estimated population of 13,400. On this population the general death-rate, the deaths under one year of age, the measles, scarlatina, whooping-cough, fever, and diarrhœa death-rates are all substantially in excess of those for England and Wales as a whole. The fever is enteric fever, and when we read of defective sewers holding deposits and having inadequate ventilation, and of large, deep, sloppy middensteads of the worst northern type, together with a water-supply which should be excellent, but which is exposed to pollution from farmsteads and cottages, there is nothing to wonder at in the presence of this fever. House accommodation is fairly good in so far as commodiousness is concerned; but some houses are built back-to-back, and are dilapidated and dirty; some are built on old refuse tips; and others have but a small enclosed space, this being characterised by filth nuisances. Unfortunately the authority have been placed in great financial difficulties, and have incurred a loss of £20,000 owing to the defalcations of a clerk; but there is room for steady improvement, which need not involve an immediate disbursement of any large sum, and it is to be hoped that the recommendations annexed to the report will be accepted as a guide for future work.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Sunderland Urban District.—This borough, with a population of 127,422, had, during 1886, a birth-rate of 36·2 and a death-rate of 19·4 per 1000; the latter rate contrasting favourably with a mean rate for forty years of 24·4. Mr. A. E. Harris takes the opportunity of indicating the improvements with which this reduction has been associated, and he refers specially to the efficient and systematic cleansing of middens, ashpits, and pails. This work is done in the night, an arrangement which we believe, in most instances, to be faulty; for the cloak of darkness is not favourable to cleanly operations or to the remedy of discovered defects. Phthisis is one of the diseases the mortality of which has been lessened, and the change is attributed to the healthier conditions affecting life in the borough. The zymotic rate was also less last year than during any year as to which records are available; it amounted to 2·4 per 1000, and it involved a material diminution in the incidence of most of the infectious diseases. The notification of these diseases is in operation in this district, and is stated to have operated most beneficially. Forty cases of typhus came under notice, Sunderland being one of the districts where this disease has made its reappearance, and the occurrence calls to mind that there is still much property that needs removal in the sanitary interests of the borough. A detailed account of the current sanitary work of the district is included in Mr. Harris's report; statistical tables form an appendix, and a disease chart shows at a glance the distribution of the

principal preventable diseases that have prevailed in the borough.

Poplar.—In the south district of this metropolitan area the death-rate was 19·9 per 1000 during 1886, this being the lowest, except that for 1885, since registration began. Amongst the exceptional deaths that took place was a sudden one from lead poisoning, and Mr. F. M. Corner states that in the last three years six women from the same firm have died from the same form of poisoning, death occurring with but little previous warning. In the north district the general death-rate was as low as 15·4, and this with no less than 1·26 measles deaths, which raised the zymotic rate to 2·6. The difficulties in preventing the spread of this disease are very great, and we must look to more intelligence on the part of parents before they can be met. Referring to the number of people who prefer to sleep out of town, Mr. R. M. Talbot says that between 2 and 7 A.M. the air in the streets at the East-end is often as pure as that of many country towns, and this the more so because no fires are burning. But London is most difficult to sleep in at a time of year when the fewest fires are alight; and, besides the fact that people want to get to sleep before 2 A.M., there are other hindrances to sleep than smoke and mere impurity of air.

Holborn.—The main portions of this report relating to the health of the district are statistical. The death-rate is given as 24·4 per 1000, after the necessary corrections; but Dr. Gibbon thinks that a proper estimate of population would lower this rate. Referring to smoke abatement, he points out that there is about 15 per cent. more sunshine near Lewes than at Greenwich, the two places where record is kept, and he attributes the difference to the gross and wasteful way in which coal is consumed, and which leads to a canopy of smoke over London. At present 75 per cent. of coal is wasted in our domestic fireplaces, and he hints that instead of taking off the coal duty in London it would be well to apply it everywhere, so as to induce greater economy by the construction of proper grates.

Islington.—In this parish a death-rate of 15·7 per 1000 during the past year constituted the lowest recorded rate. It occurred in connexion with an exceptionally low birth-rate of 30·0 per 1000. Referring to the marked absence of small-pox, Dr. Tidy fears it may be the precursor of a rising wave, and he urges cleanliness and protective vaccination and revaccination, matters that are but too often neglected in non-epidemic times. Tabulation of the scarlet fever and diphtheria deaths, both for the metropolis and for Islington, shows how, with improved diagnosis, the proportional fatality of the two diseases has altogether changed; for whereas formerly the deaths from scarlatina were all but uniformly in excess of those for diphtheria, the reverse is now the case. Of 112 samples of food analysed, Dr. Tidy only found five adulterated, and in these cases the article was milk, and the vendors were prosecuted. In connexion with the general sanitary work, it is stated that under the bye-laws as to houses let in lodgings, though much has been done, it would be impossible, in the absence of a caretaker, to enforce the carrying out of the minor requirements. Having this in view, Dr. Tidy expresses the conviction that people can never be regulated into being cleanly and obedient to the laws of health. Fortunately much has already been done throughout the kingdom in this direction, and we are not without hope that the "many improvements" which even in Islington have been effected by the new regulations will not be the last result of the adoption of the code referred to.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5877 births and 3099 deaths were registered during the week ending October 8th. The annual rate of mortality in these towns, which had been 16·2 and 17·5 per 1000 in the preceding two weeks, rose again to 17·5 last week. During the thirteen weeks of last quarter the death-rate in these towns averaged 20·4 per 1000, and was 0·5 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 11·6 in Wolverhampton, 13·9 in Bradford, 14·1 in Brighton, and 14·4 in Birkenhead. The rates in the other towns ranged upwards to 24·1 in Blackburn, 24·6 in Bolton, 25·6 in Manchester, and 30·1 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 440 and 460 in the preceding two weeks declined last week to 412; they included 96 from scarlet fever, 95 from diarrhœa, 66 from whooping-cough, 58 from "fever" (principally enteric), 46 from measles, 38 from diphtheria, and 13 from small-pox. These zymotic diseases caused the lowest death-rates last week in Hull, Brighton, and Nottingham; and the highest rates in Derby, Blackburn, and Bolton. The greatest mortality from scarlet fever occurred in Norwich, Birkenhead, Huddersfield, Salford, Bristol, Blackburn, and Halifax; from "fever" in Manchester, Portsmouth, Salford, and Plymouth; from measles in Manchester, Bolton, and Derby; and from diarrhœa in Blackburn and Bolton. The 38 deaths from diphtheria in the twenty-eight towns included 25 in London, 2 in Birmingham, and 2 in Liverpool. Small-pox caused 13 deaths in Sheffield, but not one in Greater London or in any of the twenty-six other large towns. Only 4 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease; whereas the number of cases of scarlet fever in the Metropolitan Asylums Board hospitals and in the London Fever Hospital had increased to 1759. The deaths referred to diseases of the respiratory organs in London, which had been 142, 160, and 219 in the preceding three weeks, declined again last week to 206, and were 51 below the corrected average. The causes of 72, or 2·3 per cent., of the deaths in the twenty-eight towns last week were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Nottingham, Hull, Brighton, and in five other smaller towns. The largest proportions of uncertified deaths were recorded in Newcastle-upon-Tyne, Oldham, Blackburn, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18·3 and 17·7 per 1000 in the preceding two weeks, rose again to 18·1 in the week ending October 8th; this rate exceeded by 0·6 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 12·3 and 13·0 in Greenock and Perth, to 18·7 in Glasgow and 26·5 in Paisley. The 453 deaths in the eight towns last week showed an increase of 11 upon the number in the previous week, and included 22 which were referred to diarrhœa, 19 to scarlet fever, 17 to whooping-cough, 7 to diphtheria, 6 to "fever" (typhus, enteric, or simple), 3 to measles, and not one to small-pox; in all, 74 deaths resulted from these principal zymotic diseases, against numbers declining in the preceding four weeks from 112 to 71. These 74 deaths were equal to an annual rate of 3·0 per 1000, which exceeded by 0·3 the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of diarrhœa, which had been 55, 28, and 17 in the three previous weeks, rose again last week to 22, of which 8 occurred in Glasgow and 7 in Dundee. The deaths from scarlet fever, which had been 11 and 12 in the previous two weeks, further rose last week to 19, and included 7 in Dundee, 6 in Glasgow, 3 in Perth, and 2 in Edinburgh. The 17 fatal cases of whooping-cough showed a decline of 6 from the number in the preceding week; 6 occurred in Glasgow, 4 in Edinburgh, 2 in Leith, and 2 in Dundee. The 7 deaths from diphtheria showed a further slight increase upon recent weekly numbers, 5 occurring in Glasgow. The deaths referred to "fever," which had been 11 in each of the preceding three weeks, declined last week to 6, of which 3 occurred in Glasgow and 2 in Paisley. The deaths attributed to acute diseases of the respiratory organs in the eight towns, which had been 62 and 83 in the preceding two weeks, declined again last week to 78, and were 15 below the number returned in the corresponding week of last year. The causes of 56, or more than 12 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 34·3, 30·6, and 30·9 per 1000 in the preceding three weeks, declined to 24·2 in the week ending October 8th. During the thirteen weeks of last quarter the death-rate in the city averaged 31·0 per 1000, the mean rate during the same period being but 19·6 in London and 18·2 in Edinburgh. The 164 deaths in Dublin last week showed a decline of 45 from the number in the previous week; they included 13 which

were referred to diarrhœa, 6 to measles, 4 to "fever" (typhus, enteric, or simple), 3 to scarlet fever, 2 to whooping-cough, 1 to diphtheria, and not one to small-pox. Thus the deaths resulting from these principal zymotic diseases, which had declined in the preceding seven weeks from 78 to 37, further fell last week to 29; they were equal to an annual rate of 4·3 per 1000, the rate from the same diseases being but 1·9 in London and 2·2 in Edinburgh. The fatal cases of diarrhœa, which had ranged in the preceding seven weeks from 38 to 19, further fell last week to 13. The deaths from measles also showed a further decline from recent weekly numbers, while those referred to "fever" showed an increase. The fatal cases of scarlet fever, "fever," and whooping-cough did not show much variation from recent weekly numbers. The deaths of infants showed an increase of 1, while those of elderly persons were fewer by 9 than those returned in the previous week. Four inquest cases and 3 deaths from violence were registered; and 49, or nearly a third, of the deaths occurred in public institutions. The causes of 22, or more than 13 per cent., of the deaths registered during the week were not certified.

Correspondence.

"Audi alteram partem."

"THE PRESYSTOLIC MURMUR, FALSELY SO CALLED."

To the Editors of THE LANCET.

SIRS,—In a very interesting contribution to THE LANCET of Oct. 1st and 8th, Dr. Dickinson has once more raised a question as to the true character of the "presystolic," or, as I prefer to call it (and as it is usually called here), *auricular-systolic* murmur, as observed in cases of mitral stenosis. The controversy invited by Dr. Dickinson's communication is, as he himself admits, not a new one, inasmuch as it was exhaustively treated in your own columns in March and May, 1872, as between the late Dr. Andrew Barclay and others, Dr. George Balfour of Edinburgh being on that occasion, as in his well-known book published in 1876, the able and sufficient champion of the view which I regard as the correct one, and which has been taught in Scotland for thirty years or more to medical classes in Edinburgh and Glasgow. Still, there is an advantage in having any matter of medical doctrine supposed to be still in controversy taken up by one like Dr. Dickinson, who is too much in earnest, too practical in his tendencies, and too well versed in original research to be likely to trouble himself at all with a purely academical discussion *pro* or *con*. For this reason I venture to submit a brief rejoinder to his "remarks" in the same spirit as the remarks themselves. I do not propose fully to discuss the question of the auricular-systolic murmur on the present occasion, but only to indicate what I consider sufficient reasons for adhering to the customary nomenclature and views of its nature and causation.[1]

Perhaps it may be as well to place in the front of the argument the points on which both sides are agreed. Fortunately Dr. Dickinson is by no means grudging in his admissions in this respect, nor does he obscure the question at issue by any irrelevant or disturbing doubts in respect of the practical significance of the murmur as a diagnostic fact After describing anew the murmur and briefly alluding to the theories of it, he adds (p. 650): "Some of these propositions I am about to dispute, but there is no possibility of doubting the practical outcome. The murmur which has been thus described ..... is pathognomonic of mitral stenosis. If the theory is to be judged only by the correctness of the diagnosis which follows from it, it must be correct." And, again, towards the close of his paper (p. 697): "It may be accepted as a general truth that a diseased mitral valve does not shut unless the orifice is narrowed; thus the so-called presystolic murmur becomes a sign of stenosis. For this great landmark of cardiac diagnosis we have to thank Dr. Gairdner. Our estimation of its value will not be lessened by any difference of opinion as to the precise origin of the morbid melody which we can so readily recognise, and from which we learn so much." Dr. Dickinson is here almost too generous; but the history of this subject is a long and involved story, which has been admirably told by Dr. Balfour in an address[2] recently published, and I therefore abstain from remarking upon it further than to indicate that no kind of personal question, apart from the purely scientific issues involved, interferes, or at least ought to interfere, in the argument on the present occasion.

We may take it, then, as admitted on all hands that a murmur immediately preceding the first sound, having, moreover, a peculiarity of character and intonation which Dr. Dickinson does not fail amply to recognise, and very frequently, if not invariably, accompanied by some alteration in quality of the first sound itself, as well as by a more or less pronounced reduplication of the second sound, is distinctive of mitral stenosis. The question at issue is whether the murmur so characterised is produced only while the ventricle is in systole (but at the very commencement of the systole) before the auriculo-ventricular valve has had time to become completely closed, or whether it occurs at the very end of the ventricular diastole, and while the auricle is contracting (the valve, of course, being still in the open position). It might even appear to some that this question is, after all, an academical rather than a practical one, or, as Dr. Balfour puts it, "To all such arguments it might at first sight be sufficient to reply that so long as what is called a presystolic murmur is duly recognised as an infallible sign of mitral stenosis, it is a matter of no importance whether we regard it as auricular-systolic or ventricular-systolic in rhythm."[3] But in a matter of this kind nothing that conduces to clearness of thought and accuracy of observation can be said to be of *no* importance. There are curiosities, even mysteries, enough about the murmur of mitral stenosis, clear as its practical significance may be in most instances, which should make us anxious to avoid all needless confusion of thought about it. Besides, I quite agree with Dr. Dickinson when he says that "a sum has been known to prove, notwithstanding that errors have crept into the working of it." I will only add, therefore, that in my own teaching, from first to last, the practical fact of the coincidence of the murmur with mitral stenosis has been set forth always as of the first, and the theory of it as of the second, degree of importance. But I am by no means disposed to concede that there is, as the matter stands at present, any doubt or insecurity in respect of the theory of this murmur as set forth by me in 1861. In point of fact, the theory stands, if it stands at all, by its own inherent simplicity as an explanation of the facts. If, as Dr. Dickinson affirms, "Dr. Gairdner's position became that of orthodox medicine," the "orthodoxy" is not the result of any highly elaborated arguments or unduly dogmatic declarations on my part, much less of any assumption of papal or ecclesiastical infallibility, for to "orthodoxy" of this kind I have ever been entirely opposed.

There is a feature of the auricular-systolic murmur (as I still venture to call it) which has been overlooked, or cast into the shade, by Dr. Dickinson, as well as by all his predecessors, in the views he has adopted, but which the reader will find most carefully and deliberately laid down, and illustrated by a diagram, in my first publication on the subject in 1861. "The auricular-systolic murmur may merely precede the first sound—i.e., it may follow the pause of the heart's action; or it may appear to be prolonged out of, or even quite through, the period of rest, being in this last case necessarily associated with a degree of the ventricular-diastolic murmur presently to be described. Its essential character, however, is preserved in every case, as above defined, and as represented in the diagram."[4]

In other words, while the most *characteristic* (and also the least variable) element in the A.S. murmur is that which immediately precedes the first sound, and coincides (as I believe) with the auricular systole, the murmur itself is often much more prolonged than this, and may cover not only the auricular-systolic period, but also the period corresponding with the active diastole of the ventricle, and also with the pause, or rest, of the heart; and in such cases

[1] I may refer the reader also to the *Glasgow Medical Journal* for Sept. 1887, p. 226, for some further observations on a paper by Dr. McVail, which, I observe, has been reproduced in the *British Medical Journal* of last week without my rejoinder as made in the Medico-Chirurgical Society immediately after the paper.

[2] Harveian Discourse for 1887: On the Evolution of Cardiac Diagnosis from Harvey's days until now, (*Edinburgh Medical Journal* for June, 1887. pp. 1073, *et seq.*

[3] Clinical Lectures on Diseases of the Heart and Aorta, 1876, p. 107.

[4] Clinical Medicine, p. 575.

(I will add, as the result of all my subsequent experience) the murmur, though varying, it may be, in intensity, is usually homogeneous as to character and intonation,[5] so that even in cases of the most complex and combined murmurs it is for the most part easily distinguished from the others which may be accidentally associated with it.

Now, I fail to see how this fact (supposing it to be a fact) can be reconciled at all with Dr. Dickinson's hypothesis. On the view of the case that I have adopted, it is at least possible to understand how, with a stenosed orifice, there should be a murmur extending over the entire period when the ventricle may be supposed to be gradually filling, *a tergo*; although it may be, and is, difficult to explain why this murmur should vary so much in intensity, and otherwise, in individual cases of like pathological characters, and even in the same case at different times. But it is utterly out of the question to suppose that a murmur which begins soon after the second sound, and extends throughout the pause up to the first sound (with varying intensity, but essentially unchanged characters), can be associated with the ventricular systole or caused by regurgitation from the ventricle. The only explanation of such a phenomenon open to Dr. Dickinson would be to affirm in all such cases that the murmur heard was not *one* murmur, but *two*. And this I take to be his actual explanation, judging from the latter part of his paper (p. 695), in which he aims at rehabilitating the damaged credit of the old "mitral diastolic" murmur of Hope and others, by distinguishing it from the so-called presystolic. But he will excuse me if I prefer the evidence of my own ears, long exercised in this very inquiry, and assuring me on many occasions that the long-continued, rumbling, and very characteristic murmur to which I am now referring is identical, in all its essential attributes, with the much more brief murmur immediately preceding the first sound, to which we in Scotland usually apply the term auricular-systolic (A.S.).

Take, for example, the very remarkable, if not unique case recorded at pp. 602-3 of my "Clinical Medicine," a case all the more valuable for my present object, because the clinical description of it was written and published years before the verification of the essential diagnosis by a post-mortem examination. In that case there was, strictly speaking (as afterwards discovered), no stenosis at all; but there was, on the other hand, a ball-valve obstruction of the tricuspid orifice caused by a globular tumour depending from the auricle, and acting as a plug, partially damming up the opening, but *only* during the flow of blood from the auricle to the ventricle. The right ventricle and all the parts in front of the tricuspid valve were in this case absolutely normal; so that there was no excuse whatever for ever suspecting a murmur of regurgitation, or, indeed, any other murmur than one of obstruction.[6] These facts give to the following brief description an importance out of all proportion to the amount of detail in it, inasmuch as it was the carefully condensed result of a large number of observations made over a lengthened period of hospital residence on a case which, on account of its exceptional character, attracted much attention. "The cardiac murmur begins immediately after the second sound, continues (*diminuendo*) throughout the pause, and then goes on (*crescendo*) up to the first sound, at which it stops abruptly. I think tricuspid contraction [it should have been *obstruction*, to correspond with the actual conditions afterwards found] may in this case be predicated with all but mathematical certainty; the fact, however, of having witnessed this typical instance only serves to make me more entirely confident that I cannot have overlooked the fact in many other cases." It will be observed that the intonation and acoustic characters of the murmur are not here critically reported, but the impression intended obviously to be conveyed is of one and the same murmur, prolonged without a break through the entire interval. I am very sure, even now, that this *was* the impression vividly and instinctively conveyed to the ear throughout the long period of observation in this case. But if, as sometimes happens, the *diminuendo* portion of the murmur should have disappeared, or should become (according to Dr. Dickinson's apt poetic quotation) "a sound so fine that nothing lives 'twixt it and silence," there would be no small risk of misconception; the *one* murmur, homogeneous throughout, might then easily be conceived of as *two*, of which the former would be certainly diastolic in rhythm. This, at all events, is all that I can urge on behalf of Dr. Dickinson's descriptions to bring them into some kind of conformity with my own observations. And if this be not the authentic basis in observation for the "old mitral diastolic murmur," then I must simply affirm that I am not acquainted with it at all, and am therefore not in a position to recognise it as a separate and distinct phenomenon.[7]

There is another point in which Dr. Dickinson's descriptions fail to convey to my mind the impressions derived from the use of my own senses, and thus fixed in my mind as the result not of theory but of sheer experience. At page 651, col. 2, he speaks of the case, not at all one of infrequent occurrence, when a murmur preceding and a murmur following the first sound are associated together. He seems here to attribute to the advocates of the current theory a confusion of language or of thought, or both, on the strength of which he immediately builds up an apparent paradox in argument, such as he feels bound to repudiate. But the confusion and the paradox are alike foreign to all that I have observed and written upon the subject. When these two murmurs coexist (he says in effect) they are inseparably blended. "The two have become one. The presystolic and the systolic are so joined *that no man can put them asunder, or say where one begins and the other ends.*" I ask now, with some astonishment, Is Dr. Dickinson here professing to give his own observations or mine? If the latter, I would simply refer him to pp. 577-78 of my "Clinical Medicine," without quoting the passage at length, as it is somewhat long. He will there find that I have been at the utmost pains to show that these two murmurs are never thus inseparably blended; that they always preserve their exact separate rhythm, and are sharply demarcated from one another, either by the first sound remaining clear and definite (as it usually does) between the two, or by an abrupt change in the character of the murmur itself, marking, as it were, an interval between them (though the interval may be too brief to appear *soundless* to the listening ear). And this is not a mere matter of words or a trivial difference in respect of the facts; for it is on this very misconception that we are apparently to be driven into the false position that believing, as we do, these two murmurs to be absolutely distinct, we yet find them, as a matter of observation, thus inseparably blended. I say emphatically, for myself, that the error and confusion here, if any, are not mine. The two murmurs (A.S. and V.S., as we always denote them in Glasgow) both *are* and *appear* quite distinct to the ear in all but a fractional minority of cases. Nay, it is their very easy differentiation in fact that constitutes, in my mind, one of the leading objections to Dr. Dickinson's theory. For if *both* of these murmurs are in reality *ventricular-systolic*, and therefore murmurs always of regurgitation, why should they be ever distinguished, either in fact or in appearance, the one from the other? Dr. Dickinson's paradox thus, to my mind, proves fatal to his own hypothesis, and not to mine.

Since I began these hastily written remarks, which are all that I can ask you to give space for at present, I have received a letter from Dr. Sansom to the following effect:—"I am not at all convinced by Dr. Dickinson's reasoning in THE LANCET concerning the presystolic murmur—rather am I convinced the other way. I must meet his observation as to the *time* of the ventricular systole in a case of manifesting the murmur by a direct negative, for I have convinced

[5] In using this expression as that of the broad statement of the facts conveyed to my ear in most cases, I am not indisposed to admit, with Dr. Balfour, that the diastolic element of this murmur is softer, as a rule, than the presystolic; and that it may also occur in some cases when the latter is indistinct, or perhaps even absent. These cases are, however, so exceptional that I admit their existence with some difficulty, although they may possibly have been present to the minds of some of those great auscultators who have insisted upon the diastolic mitral murmur as "exceedingly rare"—"feeble, soft, &c., owing to the weakness of the diastolic current out of the auricle" (Hope); or who (like Walsh) have "never observed diastolic thrill at the left apex," and "have never heard this murmur of great intensity." See also a note further on upon this subject.

[6] The preparation illustrating this very rare case is now in my possession, and has been shown to numbers of persons, including a very full meeting of the Medical Section of the British Medical Association in London.

[7] I must, however, allow for a small and perplexing minority of cases in which, from one cause or another, the rhythm is difficult to follow, and even the facts remain more or less uncertain. I will not, therefore, declare absolutely against the old mitral diagnostic murmur; and I will observe a similar reserve as regards Dr. Austin Flint's curious but exceptional experience of a murmur, apparently of mitral stenosis, going along with free aortic regurgitation and with an uninjured mitral valve and orifice. (See the *Glasgow Medical Journal* for September, referred to above.)

myself and every observer in an instance now under my observation that the maximum of movement is exactly with the end of the murmur—i.e., with the ventricular systole." This, too, is entirely in harmony with such impressions as I have hitherto been able to form as regards the facts; but I should have hesitated in saying so in the face of the apparently precise statements and experiments detailed on p. 651 of Dr. Dickinson's paper, were it not that I very fully recognise the difficulty which Dr. Dickinson has himself experienced of making "two senses work together in exact consent." I will only say, therefore, that, so far as my observations go, Dr. Sansom is right; and from his well-known exactness and skill in the employment of mechanical appliances in cardiac diagnosis, I fully expect that he will be able ere long to supply further evidence upon the subject.

In the meantime I hope, and indeed feel sure, that Dr. Dickinson will excuse me for dealing thus imperfectly, on the spur of the moment, with his elaborate and very suggestive paper, and that he will also readily pardon any too eager expressions of dissent from his views, in the full conviction that such dissent is governed by, and indeed mainly due to, the sincere respect I have always entertained for his large and fruitful labours in various departments of scientific medicine.

I am, Sirs, yours truly,

W. T. GAIRDNER, M.D., LL.D., &c.,
Professor of Medicine in the University of Glasgow.

Glasgow, Oct. 11th, 1887.

To the Editors of THE LANCET.

SIRS,—It has a long time occurred to me to question the interpretation of murmurs generated at the various cardiac valves; and in relation to mitral disease, I have on more than one occasion in the out-patient room written down a diagnosis thus: Mitral systolic murmur—stenosis. I have also had prepared for some time the basis of a paper on this subject, but was diffident of publishing it, knowing how opposed the views contained therein would be to those generally accepted. Dr. Dickinson's brilliant paper in THE LANCET of Oct. 1st has shown me that, whilst differing from the opinion of most of the great authorities as to the cause of this so-called presystolic murmur, I am at least in good company when on the same side with Dr. Dickinson. Much therefore that I can say must be supplementary to, as well as in support of, Dr. Dickinson's contentions.

My basis of argument must, firstly, be made plain. I do not contend that a mitral stenosis is not often accompanied by a thrill and by a loud murmur terminating abruptly, which occupies the time in which one would suppose the ventricle to be in diastole, and which murmur we have been taught to call presystolic or "auricular systolic." But I do contend that this murmur is not generated at the mitral ring, but that it is generated by, and entirely owing to, altered flaps and chordæ tendineæ, and that it is evidence of regurgitation, and not of obstruction. In other words, although the so-called presystolic murmur may be, and probably is, diagnostic of mitral stenosis, the pathological condition which has caused this narrowing of the orifice has also, at the same time, caused thickening and rigidity of the mitral valve with thickening and shortening of the chordæ tendineæ attached thereto; and it is these latter conditions which form the musical instrument. The recognition of the murmur, like the writing on the wall, has been apparent; the interpretation thereof has not been so easy.

In my out-patient practice at the North London Hospital for Diseases of the Chest, I examined post mortem the hearts of two children who died after having had for some months all the physical signs of mitral stenosis. The dissections in both cases revealed stenosis, some little dilatation of the left auricle, together with the alteration in the mitral curtains, to which I have alluded. But (and here I would differ from Dr. Dickinson) the stenosis was not so marked a condition as the rigid thickened valve. The question then arose, How did, in each case, the miscalled presystolic murmur occur? There was in each case a prolonged first sound, with accompanying thrill. This first sound, which I looked upon as systole, was attended by, in fact replaced by, a murmur which increased in intensity towards the end of systole, till it finally terminated in a sharp note (or "snap" of Dr. Ormerod); then could be distinctly heard a break or interval, followed by a typical second sound. The sounds heard during this cycle of events may be represented by *f-r-u-u-m-p—dup*. Supposing this were tabulated so as to represent the views of our great authorities on valve disease, it might be written thus:—

	1.	2.
f r u Presystolic murmur.	*u m p* Systole.	*dup* Diastole.

But let us see how it would meet our views if written thus:

1.	2.
fru u mp Systole prolonged and laboured.	*dup* Diastole.

Against the first proposition I would contend that if the first part of the murmur be presystolic, there ought to be, as Dr. Dickinson insists, a break between auricular and ventricular systole; a period of slack water between the flow and ebb tide; an arrest between the up and the down stroke, as in fiddle-bowing,—a condition which does not occur. There must be invariably narrowing of the mitral ring with roughened surfaces of this ring and of the auricular aspect of the valve, there should be also auricular hypertrophy.

On the other hand, let it be conceded that a rigid flap hanging in the ventricle cavity, and attached to its wall by a shortened cord, responds slowly to the current raising it, and we have, as I think, all the elements producing the phenomena known as the presystolic murmur. The whole of the noise up to the "snap" is, I take it, caused by ventricular systole; it is synchronous with the heart's prolonged heave; the rigid mitral curtains which are edgeways on to the returning current vibrate by means of their rigidity being opposed to the current; regurgitation into the auricle is occurring all this time; the mitral flaps are being slowly raised (physiological time), they ultimately meet one another with a shock, systole is completed, and regurgitation arrested. I will compare this state of things to the lower lock gates of a canal when the lock is being filled. The current of the water is enough to gradually push the gates towards one another, some water at the same time escaping through them; the gates eventually close and fit tight with a sharp sound, and leakage is stayed. In a normal heart's action, I take it that the mitral flaps are raised at once directly the ventricular chamber begins to contract; the two flaps next meet one another, and their soft smooth convex surfaces come together with a slight noise. The right segment of the valve, being common to both aortic and mitral orifices, has a double function: it acts as a factor in completing the closure of the auricular-ventricular orifice, and it also serves as an inclined plane directing the column of blood into the aortic infundibulum. But in a rigid valve conditions are altered. There is no sudden closure by the mitral. The doors are heavy, they take some time to move, they are held down by thickened, altered, and inelastic cords; and when at last they do close, their meeting is marked by an abrupt, explosive sound, marking the climax to a murmur which has been going on all the while. The murmur may therefore be presystolic in the sense that the term systole, in view of its comparatively quick completion, is marked by the sudden closure of the valve, but it is still ventricular systolic in its causation.

As regards thrill. Must we be satisfied with the view that it is caused by blood being crowded through a narrow slit-like, roughened orifice; that a weak chamber acquires, in a short time, power enough to generate a vibration, which is coarse enough to be felt, but not rapid enough to cause a musical note? If this be so, should not the whole organ itself participate in the tremor, and therefore should it not be felt all over the cardiac area, although it might be intensified and accentuated at the mitral ring? This seems to me difficult to accept. Does it not seem more likely that a stiffened flap, held edgeways, or perhaps a little aslant, to the regurgitant stream shall fill all the conditions required to produce a thrill? A vocal cord produces a note; it also produces a thrill.

The proposition advanced in the foregoing may be summed up thus: In cases of so-called presystolic murmur there are—1. A thrill felt over the apex. 2. A prolonged roaring murmur, composed of distinct vibratory elements, terminating in a snap or bang. 3. There is no halt or break in rhythm, and no sudden alteration in musical character

between the commencement and the end of the murmur. 4. The roaring murmur is caused by the ventricular systole. 5. The termination thereof (or snap) represents the concussion of the mitral flaps and the arrest of regurgitation. 6. The thrill is produced by a rigid flap vibrating in a stream powerfully propelled.

Propositions 1, 2, and 3 may perhaps be granted. Propositions 4, 5, and 6 do not probably as yet meet the views of the profession; but, if I read Dr. Dickinson's paper aright, they are held by him as well as by myself.

I am, Sirs, yours obediently,

Seymour-street, W., Oct. 1887. SEYMOUR TAYLOR.

To the Editors of THE LANCET.

SIRS,—May I be allowed space in THE LANCET for a few sentences in defence of the auricular-contraction theory of the production of the presystolic murmur, which was assailed in last week's number by so great an authority as Dr. Dickinson, who contends that the murmur in question is really a regurgitant murmur of systolic rhythm?

With regard to actual points of observation, I am disposed to disagree with Dr. Dickinson only on one, albeit an important one. It is his statement that the presystolic murmur accompanies, and does not precede, the apex impulse. I have over and over again convinced myself, and others who were with me, that the presystolic murmur and its accompanying thrill do precede the impulse of the apex, and, moreover, close abruptly with it. Coming to matters of theory, a large class of cases of mitral stenosis which never present a presystolic murmur at all demonstrate the fact that the closure of the mitral valve takes place at the beginning of the systole, for in these cases both a systolic sound and a systolic murmur are present, but the sound invariably precedes the murmur. I quite agree with Dr. Dickinson that a mitral systolic murmur must be regurgitant. The preservation of the first sound in cases of mitral regurgitation, accompanied by a systolic murmur, is matter of common observation, not only in cases of regurgitation through a constricted orifice, but in cases where there is no disease of the valves, their incompetence depending on the muscle of the heart, as well as in cases of structural change in the valve curtains, while yet it is in an early stage, as witnessed in the course of acute rheumatism. Dr. Dickinson, in the following sentence seems to ignore altogether the large class of mitral regurgitant murmurs which are preceded by a first sound: "The ordinary or old-fashioned mitral regurgitant murmur simply takes the place of the whole first sound, and lasts to its end." In nearly all cases of mitral stenosis accompanied by presystolic murmur, a systolic murmur indicative of regurgitation through the deformed orifice may from time to time be heard; but this murmur invariably follows the first sound. Moreover, the *crescendo* character of the presystolic murmur and *diminuendo* character of the systolic murmur (usually soft and blowing in character) are well marked, and the two murmurs are separated by the first sound. The systolic is, no doubt, regurgitant, but it follows the first sound. The peculiar accentuated and shortened character of the first sound, I believe, depends on the small quantity of blood in the ventricle at the time of its contraction. The left ventricular walls are usually healthy, and contract with vigour, so to speak, on a light burden.

Dr. Dickinson refers to the difficulty met with in attempting to account for the absence of a pause between the presystolic murmur and an accompanying systolic murmur, but a first sound is always represented in these cases, and it is to it that the presystolic murmur "runs up." The sound implies only the closure of the valves, and the abrupt cessation of the current producing presystolic murmur is just the condition that explains the abrupt cessation of the murmur coincidently with the first sound.

Dr. Dickinson states that he has found that the presystolic murmur begins with systolic (i.e., ventricular?) movement, but such movement does not necessarily imply contraction. It seems very likely that there will be some movement communicated to the ventricles by the contraction of the auricles.

The difficulty of explaining the loudness and roughness of the presystolic murmur by a current of blood resulting from contraction of the thin-walled auricle is considered an objection to the auricular contraction theory, but a diastolic murmur due to mitral constriction sometimes possesses almost as much loudness and roughness as the presystolic murmur, and is quite commonly accompanied by marked thrill, yet the forces producing the soniferous current can only be the blood-pressure in the lungs and the sucking action of the expanding ventricle. The theory that explains the loudness and roughness of the presystolic murmur must also explain its remarkable limitation to the apex and its extraordinary capriciousness, as shown in its coming and going, while the structural conditions remain unaltered.

I am, Sirs, your obedient servant,

Manchester, Oct. 4th, 1887. GRAHAM STEELL.

To the Editors of THE LANCET.

SIRS,—Dr. Dickinson, in his excellent remarks on this subject, speaks of the hardihood of daring to take into question one of the accepted canons of cardiac medicine—viz., that promulgated by Dr. Gairdner. It will, I hope, be some satisfaction to Dr. Dickinson to know that I, for one, have never accepted this unphysical and unphysiological doctrine, but, on the contrary, have always taken the opportunity of exposing its fallacy to the members of my class.

The arguments which I have used to disprove an auricular systolic sound are precisely those employed with so much force by Dr. Dickinson—viz., first, that the auricular contraction is insufficient to produce the necessary vibration of the diseased valve; and secondly, and very obviously, there is no break in the so-called presystolic and systolic sounds.

It does not surprise me to find that such fancies as the one Dr. Dickinson combats should occasionally take the place of plain facts, when we find that there are a number of intelligent men who are unable to appreciate the simplest and efficient cause of the first sound of the heart. There are other *impenetrabilia* in our constitution, I fear, besides "colour blindness." I am, Sirs, yours truly,

Stratford-place, W., Sept. 30th, 1887. JOHN HARLEY.

GOUTY DIABETES.

To the Editors of THE LANCET.

SIRS,—Will you allow me to call attention to a class of cases which is not only a large one, but the cause of much anxiety and frequently of considerable disappointment to practitioners who have not had the opportunity of studying it on a sufficiently extensive scale and in detail. I allude to that variety of suppressed—or, more accurately, *undeveloped*—gout, in which the symptoms are chiefly and often characteristically "diabetic." Persons affected with this malady are generally of large frame, with little stability or power, full-sized but flabby muscles, and a tendency to the accumulation of fat. They are great—or intermittingly great—eaters, and energetic or impulsive, but weak and easily exhausted. The skin is pale, and they suffer from coldness of the extremities. They sleep badly at night, and worry in their wakefulness; while by day they are drowsy, and when falling asleep breathe heavily, or, if not roused, sink into a state verging on coma with puffing, sighing, or laboured respiration. They are commonly subject to attacks of vertigo, in which surrounding objects seem to race from left to right; and not seldom they have weak hearts with rhythmically irregular pulses, and perhaps a short mitral systolic murmur, which is not constant, but more likely to be heard when the heart is acting languidly than when it has been recently stimulated by exercise. The characteristic phenomena are: (1) very great variability in the quantity, colour, and density of the urine passed in twenty-four hours, and the want of relation between the bulk of the fluid consumed and that excreted; (2) sugar is present when the urine is small in quantity, rather than when it is abundant; (3) the acidity is abnormally low in proportion to the percentage of urea; (4) there is generally much uric acid (Haycraft's test) when the sugar is absent, and less than the average proportion of health when sugar is present; (5) albumen is often found soon after a meal, either with the sugar or during a free elimination of uric acid, and when there is no albumen the phosphates are generally in excess; (6) the liver is enlarged *vertically*, and the bowels are constipated, with occasional attacks of diarrhœa, the stools being pale when scanty, and bilious when profuse. Hæmorrhoids are usually present and troublesome in these cases, and when they do not bleed they

often attain great size. Not infrequently there is also a prostatic gleet.

I will not trouble you with any attempt to account for this curious and, as it may appear, contradictory combination of symptoms and indications, although I have my own theory, and may hereafter have something to say on the subject; nor will I venture to set out the *rationale* of the line of treatment which has proved serviceable. Suffice it to state the clinical facts as I have myself observed them, and to report the means by which the symptoms have been generally ameliorated—often, as it would seem, wholly removed. In the management of cases of this class many difficulties have to be encountered, and they are far from easy to overcome. Meanwhile, one thing is certain—namely, that dieted as it is the fashion to diet patients suffering either from gout or diabetes, and treated on conventional principles either at home or at the continental spas, the subjects of gouty diabetes do not do well. They may be for the moment relieved, but they quickly relapse and, on the whole, go from bad to worse steadily. It is with a view to plead for a more generous regimen and tonic treatment I am writing. Wisely, but liberally fed, with meat in such quantities as the stomach will take, *ordinary* bread and vegetables,—in short, a full mixed diet—dry champagne, which contains a minimum of alcohol and a large proportion of ether, and well-matured port wine, in appropriate and measured quantities (the effect being carefully watched), they do well. The albumen and sugar disappear; the quantity of urine excreted becomes normal and relatively regular. The pulse gains strength and rhythm, and the condition throughout improves, under some modification of the following treatment: Ferri lactatis, 10 gr.; acidi lactici, 15 m.; quiniæ puræ, 1 gr.; extracti convallariæ fluidi (*e floribus*), 10 m.; aquæ ad ½ oz.; every sixth hour, or in bad cases every fourth, or even third, hour. Should there be constipation, I add five or ten minims of the fluid extract of cascara sagrada (U.S.); or diarrhœa, or excessive diaphoresis, ten minims of tincturæ cotonis. The results of this management, in a considerable number of cases which have recently fallen under my observation, have been so good that I think it right to place the facts on record without further remark.

I am, Sirs, yours faithfully,

Hanover-square, Oct. 1887. J. MORTIMER GRANVILLE.

COMPULSORY NOTIFICATION OF INFECTIOUS DISEASE.

To the Editors of THE LANCET.

SIRS,—Dr. J. H. Walters undertakes, in your last issue, to prove that, as regards the town of Reading, compulsory notification has been shown by six years' experience to be valuable as against disease and also acceptable to the profession. I should like him to support this opinion by categorical answers to the following questions:—

1. In what respect and to what exact extent, as shown by the death-rate of, say, the last two years, has Reading benefited in health by the system? I do not want statistics of notifications, but of deaths.

2. Is the form of notification such as to permit the practitioner, as he may in Edinburgh or elsewhere, to exclude the health officers from the disinfection and sanitation of the infected house if it is his interest to do so?

3. What proportion of the deaths are recorded by the burial authorities as having been attended by chemists and other unqualified practitioners?

I put these questions because I have in vain asked for evidence, presented by death-rates, that notification towns have improved in health in any greater degree than non-notification towns similarily situated; because I have reason to know that in towns in which the medical attendant is allowed (by stating in the notification form that the interference of the health officers is not necessary) to keep those officers from interfering with his private cases, the notification is a complete sham, many of the cases notified and paid for not being infective at all, and many infective cases being allowed to fructify just as if their existence had never been notified.

Finally, I have reason to believe that, if inquiry were made as to the number of persons attended by quacks, chemists, and other unqualified persons in notification towns, it would be found that the dread of the interference of the health officers drives very many of the sick into the nets of these persons. Can anyone produce actual figures to disprove these statements? If not, no one should trust in the unsubstantiated imaginings of Lord Basing or any other pro-compulsion partisan.—I am, Sirs, yours &c.,

Dublin, Oct. 8th, 1887. ARCHIBALD H. JACOB, M.D. Dub.

EMPYEMA FOLLOWED BY MELANCHOLIA.

To the Editors of THE LANCET.

SIRS,—I have been greatly interested by the account of Dr. Squire's case at the North London Hospital for Consumption, recorded in THE LANCET of Sept. 17th, and I am tempted to give you the notes of a somewhat similar case of my own, the curious point being that the mental symptoms in my case occurred within a few days of Dr. Squire's patient becoming melancholic.

W. B——, aged sixty-five, was taken ill about Christmas, 1886. Pleurisy was diagnosed early, but was almost devoid of pain. The left side was involved. Hiccough became incessant about the beginning of February, when my partner (Mr. G. H. Jackson) was called in. On Feb. 14th the patient was aspirated and nearly six pints of pus were removed. On the 17th I saw him with Mr. Jackson. The temperature had only once reached 99·8°, and that was quite early in the case; it was then 98·4°; respiration 24; pulse varied, about 90. The heart was displaced a little to the right. The dulness extended downwards to a distance difficult to ascertain, but the thoracic cavity gave very little evidence of fluid or consolidation. He lay on the left side. On the 19th Mr. J. Hutchinson saw him and agreed in employing free drainage, but advised us not to excise any bone, as he considered the space between the ribs sufficient. On the 20th I incised the seventh space in the anterior axillary line and inserted a very large drainage tube. A lead probe passed nearly up to the clavicle and in all directions freely. About a quart of pus was removed. Temperature 98·8°; respiration 22; pulse 96. The operation was performed under chloroform, but only lasted a few minutes. Next day his pulse intermitted every third beat with perfect regularity. The apex beat was now one inch to the inner side of the nipple. On the 27th delusions were noticed, and his mental condition grew worse daily up to March 20th, when improvement began to be seen. During this time the wound had gone on perfectly well, and as there was very little discharge the tube was removed on March 8th, in the hope that if by chance the chest closed the general health would improve. On the 14th the temperature rose to 99°, and the pulse was 103 and rather weak; the wound had closed. On April 4th the old wound burst open and a large quantity of pus escaped, and for a week the amount of discharge was great. The refilling had been watched with anxiety, but the choice lay between leaving nature to find a vent, or risking a recurrence of the insanity from which he had now so nearly recovered. About April 14th the discharge had abated materially, but I kept the tube in till May 7th, when, on its removal, the wound closed at once. His mind had now perfectly recovered, and on June 24th his only complaint was a dragging sensation on the left side. Practically nine weeks elapsed between the operation and complete closure.

I consider that the age should be noticed as an encouragement in similar cases. The melancholia assumed at one time a very dangerous type, but the watchfulness of his attendants avoided any disaster such as occurred in Dr. Squire's case, though a similar attempt was made. Did the melancholia result from weakness? Sir James Paget speaks of insanity after operations, and Dr. Savage has, I believe, recently made some remarks as to insanity in women after chloroform or other anæsthetics. I have attempted to glean information on this subject, but in vain, and I should very much like to hear from anyone who has met with a case of insanity after operation, as I propose to collect all the cases I can with a view to comparison. I wish to mention that agraphia was very much marked, and his penmanship improved *pari passu* with his general health. As a rule, the temperature was subnormal. He was not kept in bed a day longer than was absolutely essential, being out of bed thirteen days after the operation.

I happen to have seen Mr. B—— to-day (Sept. 30th). He tells me he is remarkably well, and weighs only 2 lb. less than the greatest weight he ever remembered scaling.

I am, Sirs, yours faithfully,

Tottenham, Sept. 30th, 1887. A. OGIER WARD, M.D.

"THE TREATMENT OF SCARLET FEVER."

To the Editors of THE LANCET.

SIRS,—Mr. Arthur Wiglesworth, in his letter to THE LANCET of October 8th, draws attention to the treatment of scarlet fever by the internal administration of carbolic acid. I have recently had two cases of this disease under my care, one of a very severe character, in which this method of treatment was resorted to, and with a satisfactory result. Dr. Alexander Keith of Normanby, in a communication to THE LANCET of Jan. 22nd, 1869, calls attention to the treatment of these zymotic diseases by the internal administration of carbolic acid. Six hundred cases were so treated, with five deaths. The dose of pure carbolic acid administered was from about four to six minims. He believes that the physiological effects of the acid are profuse perspiration, rapid lowering of the pulse, subsidence of pyrexia, cleansing of the tongue, diminution of soreness of throat, and increase of appetite; he also observed, as noticed by Mr. Wiglesworth, that the urine was of a dark colour.

I am, Sirs, yours faithfully,

Barking, Oct. 8th, 1887. SAMUEL LEE.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NEWCASTLE.

THE relations of the College of Medicine with it students are at present rather strained. This unpleasant state of affairs has arisen out of the students' boisterous behaviour at the opening on the 4th ult. It is true that the students have become more and more unruly on these occasions the last few years; but on the last occasion a speaker unfortunately lost his temper and made use of a rather strong expression to the students; this gave rise to a scene which may be described as little short of a riot. For the maintenance of order the College authorities have taken the extreme steps of expelling three students, and have suspended nine others for a period of six months. Although some of the students have misbehaved, the punishment is considered to be rather Draconian, and the case might still be met by an apology and a reprimand. It is felt that, although the students have fallen under censure, the authorities are not altogether free from blame.

GATESHEAD CHILDREN'S HOSPITAL.

The committee of the Gateshead Children's Hospital, having been disappointed in obtaining the site originally selected, have been presented with a very eligible one by Lord Northbourne and a donation of £200. This gift makes £900 contributed by the Northbourne family.

SUNDERLAND.

In his quarterly report, Mr. A. E. Harris, the medical officer of health, points out that the death-rate, 19·35 per 1000, is the lowest since his appointment in 1873. The report refers to the use of feeding bottles as the cause of many deaths of children who died under twelve months. Fourteen were suckled, fifty-three fed by the bottle, and three otherwise fed. Mr. Harris states as his opinion that the use of the feeding bottle is often resorted to from laziness, and to his mind feeding with the spoon is perhaps the best form where the infant has to be fed.

RIPON.

A very painful sensation was caused in the neighbourhood of Ripon last week by the death of Mr. Thomas Millar, surgeon, of Kirby Malzeard, near that city, who died in consequence of a carriage accident. Mr. Millar was thrown from his gig on Monday morning. He was being driven by a boy, and the horse becoming restive the whip was used, the result being that the animal reared and both the occupants were thrown from the trap. The boy did not receive much injury, but Mr. Millar died from his injuries on the following Friday.

Newcastle-on-Tyne, Oct. 10th.

THE foundation stones of the extension of the Providence Free Hospital at St. Helens were laid on the 6th inst. by Lord and Lady Stanley.

EDINBURGH.

(From our own Correspondent.)

THE DISCUSSION ON SCARLATINA.

LAST Wednesday the adjourned meeting of the Medico-Chirurgical Society for discussing the subject of Scarlatina was held in the hall of the Society for Promoting the University Education of Women. There was a considerable attendance of members and visitors; but it is to be regretted that many leading Edinburgh physicians and teachers of the school were unable to be present and take part, as it was hoped they would do. The first business of the evening was the reading of a further *interim* report by the committee appointed to inquire into recent researches into the etiology of the disease. The conclusion of chief importance at which they have arrived so far is to the effect that one of the microbes described by Mr. Edington as a harmless organism is identical with that recognised by Klein as the streptococcus scarlatinæ. In commenting on this conclusion from the president's chair, Professor Grainger Stewart, who is convener of the committee of inquiry, drew special attention to the important issue which it raises in relation to Dr. Klein's researches, for with this organism it appears Mr. Edington had already experimented on the human subject with negative results. In other respects the report was of little interest, save that the experiments performed by the committee seem to have produced no positive evidence in favour of the pathogenic action of the bacillus, while they are too scanty for the aggregate negative results obtained to increase materially the doubt which attaches to its true significance in relation to the disease. The discussion which ensued dealt chiefly with the treatment of the disease and with methods of prophylaxis. Under the former heading, the chief controversy was in regard to the best method of combating pyrexia in the acute stage, and of treating the renal, glandular, and articular after effects of the disease. In regard to the second point, Dr. Ritchie spoke of the value of sulpho-carbolate af soda in small doses, along with isolation, as a prophylactic measure; Dr. Illingworth referred to his encouraging experience with biniodide of mercury; and Dr. Jamieson referred to the method of inunction with antiseptics and antiseptic warm baths. Drs. P. A. Young, Buist, and Murdock Brown also took part in the discussion, which was summed up in a few words by the President, who thought it had been of value in many practical directions, although it had shown how great a need there was for further light upon all aspects of the question. At a private business meeting held subsequently, the Committee of Inquiry were authorised to continue their research.

THE POST-GRADUATE COURSE.

The Autumn Session, if one may so designate what has now become a regular part of the year's teaching work in Edinburgh, comes to an end at the close of this week. The satisfactory results of this year's course, both as regards the interests of teachers and taught, render the maintenance of the system a certainty, and reflect considerable credit on the men to whose foresight and energy the orginations of the system is due. It is fifteen months since, after some preliminary conferences with his colleagues in the University and the Extra-academical School, Professor John Chiene drew public attention to the project in his address to the Edinburgh graduates on the 2nd of August, 1886. In the course of that address he pictured to his hearers the continuity of personal intercourse which could thus be maintained between themselves and their *alma mater;* showing that the benefit to be derived from the system was a mutual advantage, giving to the school a new and larger interest in preparing to supply its past graduates with practical instruction on an advanced basis, while they, in their turn, profited no less by coming in contact with the practical demonstration of recent advances, than by renewed intercourse with the minds to whose activity many of these are due. The astonishing success of the first effort made in Edinburgh last year has not been without distant as well as local effects: the latter seen in the permanent system, already referred to, that has taken root in Edinburgh; the former evidenced by the springing up of similar systems in other centres of medical education. Birmingham was the first to

follow the lead, a short course of lectures to graduates having been held there last November. This year Aberdeen has already seen the satisfactory completion of a holiday course for graduates; while reports from Charing Cross show that the system can thrive in the metropolis no less admirably than elsewhere. Although the course in Edinburgh this year has shown a great development as compared with last year's course, it is evident, from the expressed desires of those attending the demonstrations, that there must be a still greater differentiation in next year's curriculum if the wants of all are to be supplied. This can be accomplished without difficulty, since the number of teachers in Edinburgh is so considerable. By working on the basis of cordial co-operation that has so far obtained, a suitable division of labour among them may be established, which will include the practical treatment of all such subjects as are susceptible of tutorial demonstration.

AN AGED ZOOLOGICAL SPECIMEN.

Many old Edinburgh students and others acquainted with the Royal Botanical Gardens will hear with regret of the death of the famous sea anemone that has been kept there for so many years. Its great age—for it survived until the sixtieth year of its captivity—and the immense number of its immediate offspring, amounting to over 600, had obtained for it the familiar cognomen of "granny." It was a specimen of the Actinia mesembryanthemum, found at North Berwick in 1828 by Sir John Dalyell, in whose house it remained until the time of his death. It then came into the possession of Professor Flemming, D.D., and has since been cared for by three successive curators of the Royal Botanical Gardens. Its portrait appears in an elaborate monograph by P. H. Gosse on the Actiniæ, and it is also figured in Sir J. Dalyell's publication on the "Rare and Remarkable Animals of Scotland." So great was the public interest in this long-lived zoophyte, that an album was kept for many years in which were inscribed the names of its particular visitors; this volume contains over 1000 autographs, among them those of many distinguished travellers and scientific men. This interesting creature was fed regularly once a fortnight with half a mussel, and was supplied with fresh water after each of these meals. It was apparently in robust health until a few weeks ago, when it was attacked with a parasitic disease (*saprolegnia*), to which it shortly succumbed.

Edinburgh, Oct. 11th.

DUBLIN.

(*From our own Correspondent.*)

ROYAL UNIVERSITY OF IRELAND.

A MEETING of Convocation was held last week, presided over by Lord Emly, Vice-Chancellor of the University. After some preliminary business had been transacted, the adoption was moved of an additional report of the annual committee, read at a meeting held last December. It had reference to matters that arose with regard to a rule adopted by the Senate, providing that the signature of each person applying for admission as a member of Convocation should be his own. In consequence of some matters brought before the Annual Committee by the secretaries, the opinion of the Attorney-General was taken on the matter. It appeared that some seventy or eighty applications had been put in, all apparently in the same handwriting. A difficulty then arose with the secretaries as to the registration of the names, and in the result the opinion of the Attorney-General was taken, which stated that there was no means of testing the genuineness of the signature, and therefore the validity of the application, and suggested that the matter should be brought before Convocation. The resolution having been passed, Dr. Thomson proposed the adoption of the report of the Annual Committee. The committee submitted the following resolutions:—(1) That the Standing Orders 50 to 55, which were rescinded at the last meeting of Convocation, be restored. (2) That, pursuant to the said orders, an annual committee for the ensuing year be now elected. (3) That the following new Standing Orders be adopted: "That in future no alteration of the Standing Orders be made at any meeting of Convocation except at the ordinary annual meeting of Convocation, nor unless notice thereof shall have been given at the next previous meeting of Convocation." The report having been seconded, was agreed to. Professor Pye proposed a resolution in reference to the extent of study to be pursued by candidates for medical degrees in the University. He thought the regulations did not provide sufficient protection to the public, inasmuch as they permitted students obtaining degrees in medicine, surgery, and obstetrics, and a diploma in sanitary science, after a professional training of three years. The Vice-Chancellor having pointed out that this was one of the matters under the consideration of the medical committee, Professor Pye withdrew his resolution. The Annual Committee was elected. The last business before the meeting was a series of resolutions by Mr. Croke, but a quorum not being present no action was taken in the matter, and the proceedings terminated.

THE DEATH-RATE OF DUBLIN.

At a recent meeting of the Dublin Sanitary Association attention was directed to the Registrar-General's returns, and to the great increase in the Dublin death-rate. The general death-rate in Dublin during the quarter ending October 1st was 30·9, as compared with an average rate of 28·1 during the corresponding quarter of the previous five years, and with a rate of 19·6 in London during the corresponding quarter. The fatality from zymotic diseases has largely increased, the deaths by this class of affections rising from 212 in the first quarter of the present year to 365 in the second and 776 in the third quarter. In the entire year 1886 the total deaths from zymotic diseases amounted to 1100, while for the nine months of the present year they numbered 1353.

At a meeting of the Public Health Committee of the Corporation on Tuesday, a report was read from Sir Charles Cameron, medical superintendent officer of health, on the subject of the abnormally high death-rate in certain districts in the city. In this he states that the severity of the measles epidemic depends to some extent upon the number of children who had not been attacked in previous years. In 1886 there were only nine fatal cases of measles, and consequently but comparatively few of the many children born during that year could have been protected from measles by having had a slight attack of the disease. Similarly, in 1884, there were but 21 fatal cases recorded in Dublin, and in the year following the mortality rose to 250. The high mortality has also been largely influenced by other indirect causes, such as exposure to cold, want of proper food and care. Two important factors in the recent high death-rate have been diarrhœa and dysentery. These Sir C. Cameron attributes to the excessively high temperature during the summer and autumn, and to the extreme dryness of the atmosphere. The intense heat favoured the more rapid decomposition of organic matters, rendering the air more impure, and causing certain food to undergo putrefactive changes more readily. In conclusion, he points out that the death-rate in Dublin from preventible diseases has undergone a marked decline in the last five years, and that two of the diseases which are largely prevalent in towns in an insanitary condition have almost disappeared from Dublin—viz., typhus and enteric fevers.

The Introductory Lecture at the opening of the Medical School of the Royal College of Surgeons will be given this year by Sir W. Stokes, Professor of Surgery at the College.

Dublin, Oct. 12th, 1887.

PARIS.

(*From our Paris Correspondent.*)

PROF. VERNEUIL ON IMAGINARY LINGUAL ULCERATION.

AT the meeting of the Academy of Medicine last week, Professor Verneuil read a note on an affection to which he gave the name of "imaginary ulceration of the tongue," characterised by intense local pain, without, however, any appreciable lesion. He looked upon it as a purely neuralgic affection of the tongue, and compared it to an affection of the breast described by Velpeau under the name of imaginary tumour of the breast, which, like the above-named affection, was also characterised by intense local pain without any appreciable lesion. In both cases the mind is very much affected, and the patients almost invariably suppose that their malady is of a cancerous nature.

The treatment adopted by Professor Verneuil was that he employed in neuralgia in other parts of the body, in which he was always successful. He stated, however, that in case of failure he would not hesitate to employ hypodermic injections of analgesic substances, cauterisation with the thermo-cautery of the painful part, and the destruction of the calciform papillæ which are generally to be found on the tongue in such cases. As for neurotomy, he would discard it, not only on account of the difficulty attending such an operation, but owing to its being impossible to know whether it is the lingual or the glosso-pharyngeal nerve that should be operated on. A long discussion followed, when most of the speakers agreed with Professor Verneuil as to the nature of the malady, but added that according to their experience the subjects were generally monomaniacs, and should be treated as such.

FLUORHYDRIC ACID IN CONSUMPTION.

Dr. Garcin, physician to one of the dispensaries established in Paris for the succour of patients applying for aid during the night, recently made a communication to the Academy of Sciences on the treatment of pulmonary phthisis by inhalations of the fumes of fluorhydric acid mixed with air, which he has found most efficacious in this affection. From the month of August to within a week ago he had observed 100 cases of pulmonary phthisis in different stages. The results obtained were the following; Stationary condition, 14; improvement, 41; cures, 35; deaths, 10. The procedure employed consisted in ordering the patient to remain for an hour daily in a room measuring six cubic metres of air saturated with fluorhydric acid. This saturation is obtained by passing a current of air by the aid of a pump into a jar of gutta-percha containing of distilled water 300 grammes, fluorhydric acid 100 grammes. Under the influence of this medication, the fits of coughing are at first rapidly diminished, and then cease altogether. The sputa are changed in character, the dyspnœa and the spots of pleurodynia are also diminished. By this treatment the bacilli disappear in a few days, and at the end of fifteen or twenty sittings the condition of the patient is considerably improved, if not cured. To obtain local anæsthesia in an operation for in-growing of the nail, the toe is sprayed with ether. Dr. Chandelux of Lyons observes that it takes some time before the analgesic effect is obtained, and in order to favour the production of this latter the author employed Esmarch's bandage, of course previously applied to the limb to be operated on. In using this expedient, Dr. Chandelux found that anæsthesia was obtained in from twenty to forty seconds; whereas by the spray, without the previous application of the bandage, it requires on an average two minutes. After the employment of the ether spray, and when once the part becomes cold, the anæsthesia lasts about three minutes longer, thanks to the ischæmia produced by the application of Esmarch's bandage, owing to the heat conveyed to the part through the blood being suppressed. The preceding method has also the advantage of preventing the flow of blood during the operation with the knife, so that the surgeon is thus enabled to minutely dissect the parts, and, in the case of the in-growing of the nail, no portion of the matrix of the nail is left in the half which is removed.

COMPARATIVE DEATH STATISTICS

A very interesting return has been prepared at the Bureau of Statistics attached to the Prefecture of the Seine, showing the relative proportion of deaths from fever and other diseases in different parts of Europe. With regard to typhoid fever, Besançon heads the list with 205 deaths per 100,000 of the population. Toulouse and Marseilles come next with 118 and 108 respectively. Paris has only 46, Brussels 29, and London 17. The lowest death-rates are at Leipzig and Vienna, which give 11 each. England generally compares favourably with France, Liverpool having 34 cases and Manchester 33. Marseilles appears to have suffered greatly from small-pox, the number of deaths from this disease being 573 per 100,000 of the population. As regards scarlet fever, Holland heads the list with 285, St. Petersburg 93, Glasgow 68, Brooklyn 51, Liverpool 47, Paris 18, London 17, and Rome only 5. The greatest mortality from consumption is in the large Austrian cities, and the smallest, contrary to general opinion, in English cities.

THE CLUNY NORMAL SCHOOL.

Shortly before the holidays a few cases of typhoid fever broke out among the pupils of the Cluny Normal School, when the whole of them were hastily sent home. This precaution was, however, considered to have come too late, as numbers of the youths carried away the germs of the disease; 150 were stricken down, and several died. An investigation showed that a main sewer and three feeders running through the foundations of the school buildings were obstructed, and the foul matter had permeated the soil around them. Moreover, it was found that the water used for drinking purposes in the school came from a well fed from a neighbouring spring. An analysis of this well water showed unmistakably the presence of the bacilli of typhoid fever.

DEATH OF M. RUOLZ.

M. Ruolz, the inventor of the electro-plate process which bears his name, has just died at Neuilly, at the age of eighty years. It was not generally known that he was a Doctor of Medicine. He was also *Docteur ès Sciences* and *Docteur en droit*. He never practised medicine. He began life by composing music: he then directed his attention to industry, and made some remarkable discoveries, and among them he devised the means for melting steel and utilising bronze for different purposes.

Paris, Oct. 11th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT a Quarterly Meeting of the Council, held on Thursday, October 13th, the Minutes of the last meeting were read and confirmed.

Sir James A. Hanbury, K.C.B., was introduced and admitted a Fellow of the College.

A resolution was unanimously carried recording the regret of the Council at the decease of Mr. Richard Quain, past President and member of Council, and member of the Court of Examiners of the College; and their appreciation of the great services which he rendered to the College whilst holding those offices. A portrait of Mr. Richard Quain, by Richmond, bequeathed "to the Treasurer of the College of Surgeons, for such College," was accepted by the Council.

The following gentlemen, having been nominated by the committee, were elected examiners in Public Health, subject to the approval of the Royal College of Physicians:—Dr. T. Stevenson, Dr. Edward Ballard, Dr. Thorne Thorne, and Dr. W. H. Corfield.

Mr. John Marshall was re-elected a member of the Committee of Management.

The draft of the report to be presented to the Fellows and Members of the College at the meeting to be held on Thursday, the 3rd of November next, was approved and adopted. This can be had on application to the Secretary on and after Monday next.

The President reported that, in pursuance of the provisions of the Bradshawe Bequest, he had "chosen" Sir Joseph Lister, Bart., as the Bradshawe Lecturer for the present year, the lecture to be delivered at some convenient date in December. He further reported that Sir James Paget, Bart., will deliver the Morton Lecture on Cancer and Cancerous Diseases at a convenient date in November.

The Secretary submitted to the Council a copy of the conviction and sentence to two years' imprisonment at the Central Criminal Court of Mr. James McCully for libel. This being a criminal offence within the meaning of Clause 3, Section 16, of the Bye-laws, Mr. James McCully was removed from being a member of the College, subject to confirmation at the next meeting.

The motion of Mr. Hutchinson (see Minutes of Aug. 4th) was not brought forward, he being absent.

THE SERVICES.

ADMIRALTY.—The following appointments have been made:—Surgeon Ludlow T. Colthurst, to the *Scout;* and Surgeon John S. Lambert, to the *Royal Adelaide.*

ARTILLERY VOLUNTEERS.—1st Gloucestershire: Honorary Assistant Surgeon S. Skinner to be appointed Acting Surgeon (dated Oct. 8th, 1887).

RIFLE VOLUNTEERS.—4th Volunteer Battalion, the Gordon Highlanders: Acting Surgeon J. W. Mackenzie Gunn, M.B., resigns his appointment (dated Oct. 8th, 1887).—5th Cheshire: John Herbert Hacking, Gent., to be Acting Surgeon (dated Oct. 8th, 1887).—4th Volunteer Battalion, the South Wales Borderers: Frederick Erskine Paton, M.B., to be Acting Surgeon (dated Oct. 8th, 1887).

Obituary.

SURGEON-MAJOR G. C. ROY, M.D., F.R.C.S. ENG., INDIAN MEDICAL DEPARTMENT.

GOPAL CHUNDER ROY, son of the late Babu Loke Nath Roy, was born in Calcutta on May 16th, 1844. Having received his preliminary education in the Hindu School, he prosecuted his medical studies at the Calcutta Medical College and Hospital. During his college career he obtained prizes and certificates for proficiency in chemistry, medicine, surgery, and anatomy, and held the senior scholarship for two years. Passing out of the College in 1865, he obtained the diploma of L.M.S. His first appointment was as house surgeon to the first surgeon's ward, Medical College Hospital, under Dr. Fayrer. At this time he was also teacher of the vernacular class in the College. On expiry of the term of office he was recommended by his immediate superiors for the post of teacher of Nagpore Medical School. This appointment he held for two years, when, desirous of entering the Indian Medical Service, he proceeded to Europe in 1869. He obtained the F.R.C.S. Eng. by examination in 1870, and the degree of M.D. Glasg. in 1871. Dr. Roy stood sixth in the list of forty successful candidates. After finishing the Netley course, where he maintained his position, he returned to India towards the end of 1872, and was then appointed inspecting medical officer in the Burdwan district during the notorious epidemic fever which prevailed in that district for years. It was at this time Dr. Roy received the special thanks of the Government of India for the eminently satisfactory way in which he had discharged his arduous duties. Dr. Roy then successively held the appointments of superintendent of prison camp at Dehri, civil surgeoncy of Serampore, superintendent of vaccination, Ranchi circle, and the civil surgeoncy of the latter place for a time, in addition to his other duties. In 1878 Dr. Roy was appointed permanent civil surgeon of Beerbhoom, which appointment he held up to the date of his death.

DR. GAETANO PINI.

DEATH has indeed been busy in the ranks of our Italian brethren, and the year now drawing to its close will be sadly memorable for the multitude of distinguished and promising practitioners it has seen cut down throughout the peninsula. The latest removal from the roll was in some respects the most difficult to replace.

Gaetano Pini was born on April 1st, 1846, at Leghorn, and pursued his preparatory studies in literature under the celebrated Latinist and man of letters, Atto Vannucci of Prato. From that provincial collegio he proceeded to Pisa, where he devoted himself to medical science, and after an interval similarly employed at the University of Naples he returned to Pisa, and graduated there in medicine and surgery, *summâ cum laude*, in 1869. The honours he took were all the more creditable when the interruptions to his curriculum are considered. In 1866, when Venetia had to be wrested from Austria, he enrolled in the 2nd Regiment of Grenadiers and bore an honourable part in the disastrous day of Custoza. Again, in 1867, when Garibaldi sought to force the surrender of the Papal States to Italy, young Pini, with a few Livornese and Pisan friends, joined the auxiliary column of Niccola Guerrazzi, and engaged in much active guerilla work in the Agro Romano, including some sharp encounters with the Pontifical Zouaves at Farnese, at San Lorenzino, and at Viterbo. With the solution of the Roman question, brought about on the lines of Cavour's policy in 1870, Dr. Pini resumed professional study with fresh ardour, and assisted Dr. Corradi-Pagliari and his staff in the compilation, at Milan, of the "Enciclopedia Medica Italiana." In the same city he took up the question of the treatment of rachitic children, and his energy and counsel culminated in the splendid institution erected for these little unfortunates in 1875. In 1878 he planned and organised the Royal Italian Society of Hygiene, the last meeting of which at Florence in May, 1887, was reported as a brilliant success in THE LANCET.

It was as an active promoter of cremation, however, that, in Milan particularly, Dr. Pini was most widely known. The Cremation Society founded by him in Milan in 1876 has been followed by the organisation of thirty-six others, mainly in Upper Italy, of which fourteen possess a highly efficient crematory furnace. In 1881, when a renewed attack was made on this mode of sepulture by the Florentine clergy, he delivered in the Circolo Filologico of the Tuscan capital a powerful defence of it, which will long be referred to by all who require from time to time to recapitulate the arguments for its vindication.

Dr. Pini was indefatigable in devising medical charities and putting them into working order. His Filantropia senza Sacrifici (Philanthrophy without Sacrifices) has been eminently useful in supplying relief to the deserving invalid poor, consisting as it does in an organisation for collecting all waste paper from cities and communities, storing it, and then disposing of it, the proceeds being applied to a well-constituted charity. Other associations as serviceable in their way were also set on foot by him, such as the Soccorso Fraterno (the Brotherly Aid) and the Asili Notturni (Night Asylums).

As an author on special subjects, Dr. Pini was diligent and judicious, as evidenced by his work in Schivardi's "Annuario delle Scienze Mediche," and in the "Dizionario Etimologico di Scienze Mediche e Veterinarie," which he edited in conjunction with Schivardi, Longhi, and Fivinazzi. With all this he found time to assist on many commissions (particularly on hygiene), of which the Pellagra Commission was among the most memorable; and his abilities on such occasions were so esteemed by the Government that it associated him with Bertani as representative of Italy on the Jury for Hygiene and Medicine in the Paris Exposition of 1878. For his services he was presented by the French Government with the badge of Officer of Instruction, and by that of Italy with the Cross of SS. Maurice and Lazarus. One of Dr. Pini's last works was a practical paper on bread-making, addressed to the Milanese bakers in May, 1887, showing how the nutrient elements in bread could best be conserved and utilised; and this in view of practical State measures against *pellagra*. He died at the early age of forty-one, on September 25th, at his residence in the Sifilicomio in Milan, of which he was director, regretted by all, even by the Church party who opposed him, as one whom Italy and humanity could ill spare.

JAMES THOMAS CARTER, F.R.C.S. EDIN., &c.

WE regret to record the death, at the age of thirty-seven of Mr. James Thomas Carter of Glasgow. Mr. Carter was Lecturer and Demonstrator in Anatomy in the Western School of Glasgow, having previously distinguished himself in Edinburgh as chief assistant and demonstrator in the large classes of Mr. Symington in Minto House. In Glasgow his success was rapid and great. In one year he had over a hundred students. His knowledge of anatomy was exact and wide, and he had the happy power, not given to all great anatomists, of being able to teach it. He was little known to the public, but was beginning to make a name in the medical societies of Glasgow by work of great promise. Mr. Carter's general qualities as a man and a teacher were such as to make his early death a grievous event to all concerned in medical education. He died from scorbutus and pernicious anæmia. Mr. Carter was a Lancashire man, and educated at Owens College and Edinburgh.

VITTORIO GIUDICI.

The autumnal mortality among our Italian brethren has been heavy this year, and to the three distinguished names already recorded must be added a fourth—in some respects the most distinguished of all—Vittorio Giudici, major-general on the hygienico-military staff. He succumbed on the 3rd inst. to cerebral paralysis in Rome.

Born at Nesso on May 13th, 1819, he was in the revolutionary year of 1848 enrolled as a volunteer in the Lombard contingent under the Provisional Government, and on June 5th of the same year he obtained the rank of lieutenant. In 1849 he passed as surgeon-major into the 6th Regiment of Infantry in the Sardinian army, and thereafter rose steadily through every rank of the medico-military career. It was in the campaign of 1859, when Sardinia and France took the field against Austria, that he signalised himself most conspicuously, having obtained,

after the sharp encounter at Montebello on May 29th of that year, honourable mention for valour under fire, and again, on June 24th, he received a like tribute after the fiercely contested battle between King Victor Emanuel and General von Benedek at San Martino. From Jan. 10th, 1880, he had been attached to the Commission of Military Hygiene, and from the January of 1883 he held the highest office in the department. As a deputy in the Italian Parliament he took an able and effective part in all sanitary legislation, particularly as it bore on the health and physical well-being of the soldier. He had, shortly after his election in 1859, to resign his seat, his official appointments bringing him under the law of "incompatibility," as it is called; but this was for a brief interval. As soon as he legally could, he offered himself to the constituency of Como, and continued to represent it till the day of his death.

His death is deeply deplored by his brother deputies, as well as by the whole profession throughout Italy. His funeral, on the 5th inst., was an impressive one. From his house in the Via Balbo on the Viminal it proceeded through the principal streets between that quarter and the cemetery at Campo Verano, the route being lined with troops and spectators, and the highest posts in the army, the navy, the legislature, the universities, and the professions being all represented. The Duke Torlonia placed a wreath of fresh flowers on the bier, and, at the halt in the Piazza dei Termini, the usual *oraisons funèbres* were delivered in the name of the army and of the Chamber of Deputies.

Medical News.

ROYAL UNIVERSITY OF IRELAND. — The following have passed the Second Examination in Medicine of the University:—

UPPER PASS DIVISION.—Isaac Banks, Robert Carse, Joseph Eldon, William Hartland, John Hennessy, Thomas McDermott, John McNamara, Arthur Mitchell, William O'Donnell, James Taylor, James Tracy.

PASSED.—J. Adrian, R. Barnes, Helton Bernard, F. Bradshaw, W. Bullen, James Cluff, F. Dick, C. Donovan, P. Donovan, R. Dudgeon, W. Hughes, J. Kelly, D. Leahy, J. Loftus, R. Lyons, W. McCallin, A. McComisky, J. McLeish, C. McVicker, M. Mahony, H. Morton, T. Mulholland, J. Nevin, J. Obre, J. O'Leary, A. P. O'Toole, J. Richey, A. Robb, J. Steen.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.—At the recent examination for the degree of Master in Surgery the following candidate satisfied the Examiners, and was awarded First Class Honours:—

Thomas Horrocks Openshaw, M.B., B.S., F.R.C.S.

PHARMACEUTICAL SOCIETY OF IRELAND. — At the October Examinations the following obtained the licence of the Society:—

Alexander Ferguson Allan, Robert Wagner Maxwell, Samuel Robb, John Simpson Robinson, Robert Joseph Ronselle, and Edward Walker.

DR. ULLMANN, in a report he has just issued on some experiments he has conducted with a view to test the efficacy of Pasteur's inoculation method, pronounces in favour of the system as a preventive of hydrophobia.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—The inaugural meeting of the above Society will take place on Oct. 28th, when an address on Cremation will be given by Sir Spencer Wells, Bart.

FIRE AT A LUNATIC ASYLUM.—A telegram from Cleveland, Ohio, announces that a fire has occurred at the lunatic asylum at that place. Six of the inmates perished in the flames, while three others were injured.

ENTRANCE SCHOLARSHIPS.—At *St. Thomas's* Hospital Medical School, the first Entrance Scholarship in Natural Science (value 125 guineas) has been awarded to Mr. James Edward Harris, and the second (of the value of £60) to Mr. William Bamford Winston. Messrs. J. H. Fisher and B. G. Heather were specially mentioned. Eight others obtained marks qualifying for a scholarship.—At the *Charing-cross* School the entrance scholarship of £30 has been awarded to Mr. Harold Gardner, and that of £20 to Mr. Dudley C. P. Taylor.—At the *Westminster* School the Entrance Scholarship, value £80, has been awarded to Mr. Alfred Milne Gossage.

ON the 12th inst. Lord Stanley of Preston opened the new park, baths, and infirmary presented to Northwich by the late Mr. Verdin, M.P.

NAVAL MEDICAL SUPPLEMENTAL FUND. — At the quarterly meeting of the directors of this fund, held on the 11th inst., Sir W. R. E. Smart, K.C.B., M.D., Inspector-General, in the chair, the sum of £64 was distributed among the several applicants.

POISONING BY OYSTERS.—Several cases of poisoning by oysters are reported from Rotterdam. The first symptoms came on from sixteen to twenty hours after eating the molluscs. None of the cases have proved fatal.

NEW MEDICAL MISSIONS IN LONDON.—According to *Medical Missions at Home and Abroad*, two new medical missions have recently been opened in London, one in Canning-town under Dr. Frank Laird, the other in Brontë-place, East-street, Walworth, in connexion with the "Mildmay" workers under Dr. Henry Marston.

AT the annual meeting of the supporters of the Grimsby Hospital on the 3rd inst., it was reported that the debt on the institution amounted to nearly £1000. It was resolved that, with the consent of the donors, part of the Jubilee Endowment Fund should be used to liquidate this encumbrance.

DERBYSHIRE INFIRMARY SATURDAY FUND.—At the recent annual meeting of the committee of this fund, the balance-sheet presented by the secretary showed the total receipts for the year to have been £992, against £1026 last year, the expenses having been £66. Considering the depression in trade, the figures were regarded as satisfactory.

TEMPERANCE AND PHYSIOLOGY. — It is announced that a course of eight Friday Evening Popular Lectures will be given by Dr. W. B. Richardson, F.R.S., during the coming winter, commencing October 14th, at the Memorial Hall, Farringdon-street, E.C. The lectures will be illustrated by specially prepared diagrams shown by oxy-hydrogen lime-light apparatus.

BROCA'S STATUE.—The statue of Broca which is to be erected at Sainte Foix is to be of bronze, and not of zinc as originally proposed. The cost of this material being very high, the committee is obliged to appeal for more funds. The sculptor's charges will fortunately be saved, as the Anthropological Society, which has just erected a statue of Broca in Paris, has kindly promised the use of the mould.

BIRMINGHAM ORTHOPÆDIC HOSPITAL. — At the annual meeting of the supporters of this institution on the 7th inst., it was reported that the building required several structural alterations to render it satisfactory, and plans and estimates for these alterations have been considered by the committee. The scheme embraces new wards, operating theatre, increased sleeping accommodation for the staff, and a much-needed mortuary, the estimated cost being nearly £500. As an alternative plan, it was suggested that £2500 should be raised by debentures at 4 per cent., guaranteed on the present income, and that a new hospital should be at once built. Should this latter scheme promise to prove successful, it was decided that the committee should be recommended not to carry out the improvements mentioned.

ST. JOHN AMBULANCE ASSOCIATION.—The report of this Association just published shows that upwards of 270 administrative centres have now been formed in all parts of the world, while the detached classes are numbered by hundreds. During the past twelve months 17,718 certificates have been issued, being an increase of 5928 over any previous year, making a grand total of considerably over 110,000. Prominent features of the movement are the continued extension of classes for railway *employés* and police and county constabulary, and the increased number of ambulance and nursing "corps" formed among certificated pupils both at home and in the colonies. Detailed statements bear testimony to the good service frequently rendered by members, and reports are included showing the usefulness of the stations formed at the Colonial, Indian, and Liverpool Exhibitions, while a special letter of thanks from Sir Charles Warren records the valuable assistance rendered by the "Invalid Transport Corps" on Jubilee Day and other recent occasions.

THE Emperor William has sent a sum of 10,000 marks to be distributed among the necessitous people in the cholera stricken district of Messina.

A GIRL aged thirteen years died in the Liverpool Royal Infirmary on Wednesday from the effects of burns received on the previous evening by the upsetting of a parsiffin lamp. She was terribly burnt.

FEMALE MEDICAL MISSIONARY INSTITUTION FOR AGRA Dr. Valentine, the principal of the native Medical Missionary Institute for training young men as native medical missionaries in Agra, is very anxious to see a similar institute established for female agents. The head-quarters of Lady Dufferin's National Association for supplying Female Medical Aid to the Women of India is to be at Agra, but those employed by that association will be under a solemn obligation to abstain from saying anything about Christianity to their patients, so that missionary societies will have to make their own arrangements for female medical evangelists. There is no reason, however, why these should not be trained in professional knowledge in the Government Medical School at Agra together with Lady Dufferin's native medical women.

PRESENTATION. — During the early months of the present year, an ambulance class was conducted in the spacious club room of Messrs. Frederick Braby and Co., Limited (the corrugated iron manufacturers), of Deptford, by Mr. W. Davies, surgeon, of King's-road, Peckham, the class being for the *employés* of Messrs. Braby, twenty-two of whom went up for examination and obtained certificates. On the 1st inst. the annual meeting of the library and club belonging to the firm was held, and on that occasion the members of the ambulance class presented Mr. Davies with a very handsome large writing desk, made of Italian walnut, completely bound in brass, and beautifully fitted, having on it a brass plate bearing the following inscription artistically executed: "Presented to Dr. Wm. Davies, in appreciation of his services, by the members of the St. John Ambulance class. —Messrs. Frederick Braby and Co., Limited, October 1st, 1887."

ANOTHER DEATH FROM HYDROPHOBIA AT LIVERPOOL.—An inquest was held on the 12th inst. by Mr. Brighouse, county coroner, upon the body of a boy, aged two years and seven months, residing in Bootle. On the 17th ult. the deceased was bitten near the ear by a collie dog. Carbolic acid was applied to the wound, but no doctor saw the child until five hours after, when Dr. Wills of Bootle saw and treated the case. Deceased apparently recovered, but on the 9th inst. symptoms of hydrophobia appeared. Dr. Wills was called, and found saliva running from the mouth; the temperature over 120°; and food and drink refused. Death occurred on the 11th inst. The case was seen also by Dr. Clampitt, who confirmed the diagnosis. Dr. Wills gave evidence at the inquest, and a verdict of death from hydrophobia was returned. A police inspector stated that nothing was known of the dog in question. A number of dogs found straying within the last two months have been destroyed.

THE HOSPITALS ASSOCIATION.—On the 12th inst., at the Society of Arts, Sir Andrew Clark presided over the first meeting of the session of this Association, when the subject of the provision of help for nurses was discussed in a paper by Mr. H. C. Burdett, under the head of "A National Pension Fund for Nurses and Hospital Officials." Sir Andrew Clark, in opening the proceedings, said that the Hospitals Association was founded to help in the great work of hospitals, with the desire to make, if possible, their work more economical and, at the same time, more efficient, and also to obtain the registration of nurses, who formed so important a part of hospital administration, and he insisted that this registration was necessary for the security of nurses who were of character competent and of proved loyalty to their duty. Mr. Burdett stated that during the last five years there had arisen a feeling in favour of the establishment of a fund to provide on provident principles for the relief in sickness and age of those engaged in ministering to the requirements of the sick when incapacitated from further labour in the cause of suffering humanity. There was now reason to believe that the time had arrived when the outlines of a scheme which would adequately meet the requirements of those referred to might be usefully formulated and discussed. A discussion followed, and eventually, on the motion of Lord Sandhurst, Sir Andrew Clark was requested to lay before Her Majesty the whole subject of establishing this fund.

BOOKS ETC. RECEIVED.

BAILLIÈRE, J. B., ET FILS, Paris.
Traité complet de l'Examen Médical dans les Assurances sur la Vie.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.
Manual for the Physiological Laboratory. By V. D. Harris, M.D Lond., and D'Arcy Power, M.A., M.B.Oxon. Fourth Edition. pp. 268, with Illustrations.
Dental Caries. By Henry Sewill, M.R.C.S., L.D.S.Eng. Second Edition. pp. 83.
Tables of Veterinary Posology and Therapeutics. By Geo. Banham, F.R.C.V.S. pp. 189.

BARLOW, W. S., Bury.
Conversation Lessons on Prompt Aid to the Injured. By Henry Webb. pp. 122, with 47 Illustrations.

BLACKWOOD & SONS, Edinburgh and London.
A Manual of Zoology. By H. A. Nicholson, M.D. &c. Seventh Edition, rewritten and enlarged. pp. 930, with Illustrations.

CASSELL & Co., London, Paris, New York, & Melbourne.
The Rectum and Anus, their Diseases and Treatment. By C. B. Ball, M.Ch. Dub., F.R.C.S.I. pp. 410, with Illustrations.

CHURCHILL, J. & A., New Burlington-street, London.
Vaccinia and Variola: a Study of their Life History. By J. B Buist, M.D., F.R.S.E. pp. 224, with 24 Plates.
The Operative Surgery of Malignant Disease. By Hy. T. Butlin, F.R.C.S. pp. 407.
Surgical Pathology and Morbid Anatomy. By Anthony A. Bowlby, F.R.C.S. pp. 543, with 135 Illustrations.
Pathology and Treatment of Ringworm. By George Thin, M.D. pp. 87.
Diagnosis and Treatment of Eczema. By Tom Robinson, M.D. pp. 136.
Holden's Human Osteology. Edited by Charles Stewart and R. W. Reid, M.D., F.R.C.S. Seventh Edition. pp. 356, with Illustrations.
Public Health Reports. By John Semon, C.B., F.R.S. Edited by the Sanitary Institute of Great Britain. Two Vols. pp. 554—618.

FIELD & TUER, Leadenhall Press.
The Duties and Conduct of Nurses in Private Nursing. By W. L. Richardson, M.D. pp. 59—x.

KEGAN PAUL, TRENCH, & Co., Paternoster-square, London.
Weather: a Popular Exposition of the Nature of Weather Changes from day to day. By Hon. Ralph Abercromby, F.R.M.S. pp. 472, Illustrated.

LEWIS, H. K., Gower-street, London.
Manual of Hypodermic Medication. By Drs. Bourneville and Bricon. Translated from the Second Edition, with additions, by A. S. Currie, M.D.Ed. pp. 304.

LONGMANS, GREEN, & Co., Paternoster-row, London.
A Handbook of Diseases of the Skin. By Robert Liveing, A.M., M.D. Cantab., &c. Fifth Edition, revised and enlarged. pp. 451. 5s.

MACMILLAN & Co., London and New York.
On the Growth of the Recruit and Young Soldier. By Sir W. Aitken, Knt., M.D. Second Edition. pp. 259.

PHILIP, G., & SON, Fleet-street, London.
Modern Gymnastic Exercises (Elementary). By A. Alexander. pp. 140, with 200 Illustrations.

PUTNAM'S SONS, New York and London.
Differential Diagnosis of Diseases of the Skin. By C. W. Cutler, M.D., M.S. pp. 139.

RELIGIOUS TRACT SOCIETY, St. Paul's Churchyard.
The Diseases of the Bible. By Sir Risdon Bennett, M.D., LL.D., F.R.S. pp. 143.

SMITH, ELDER, & Co., Waterloo-place, London.
Dictionary of National Biography. Edited by Leslie Stephen. Vol. XII.: Conder—Craigie.
An Index of Surgery. By C. B. Keetley, F.R.C.S. Eng. Fourth Edition. pp. 536.
Handbook of Modern Chemistry, Inorganic and Organic. By C. Meymott Tidy, M.B., F.C.S. Second Edition, revised and enlarged. pp. 804.

SWAN SONNENSCHEIN, LOWREY, & Co., Paternoster-square, London.
St. Bernard: the Romance of a Medical Student. By Æsculapius Scalpel. pp. 474.
Health Maps: complete Series of Prescribed Exercises of the Body for Daily Use. By Anna L. Arnim. Five Groups.

WATERLOW & SONS, London Wall.
Dr. Jaeger's Essays on Health Culture. By G. Jaeger, M.D. Stuttgart. Translated and Edited by L. R. S. Tomalin. pp. 309. 1s.

WOOD & Co., New York.
A Reference Handbook of the Medical Sciences. By various Authors. Edited by A. H. Buck, M.D. Vol. V.: Mil—Pot. pp. 813, profusely Illustrated.

Light Diet; by W. H. Seager, M.D. (Simpkin, Marshall, & Co.).—Index Medicus, Vol. IX., No. 8.—Transactions of the Medical and Physical Society of Bombay, No. 10.—Etudes Cliniques sur le Morrhuol; par Dr. E. Chassaud.—Transactions of the Obstetrical Society of London;

Part II. for March, April, and May, 1887.—Prevention of Infective Fevers and the Use of Disinfectants, with Notes on the Health of Children; by Wm. Squire, M.D.—Bench-book for Test-tube Work in Chemistry; by H. T. Lilley, M.A. 1s.—Bourne's Handy Assurance Directory, 1887-8. 1s. 6d.—Third Annual Report of the Health Commissioner of the City of St. Louis, Mo.—The Royal London Ophthalmic Hospital Reports, Vol. XI., Part 4.—Annals of Botany, Vol. I., No. 1 (Clarendon Press).—Journal of the College of Science, Imperial University, Japan, Vol. I., Part 1 (Tokyo).—Anniversary Address to the Wellington Philosophical Society; by F. B. Hutchinson, M.R.C.S. Eng., &c.—Recherches sur l'Action Physiologique et Thérapeutique du Méthylal; par Drs. A. Mairet et Combemale.—Report on Anæmia or Beri-beri of Ceylon; by W. R. Kynsey (Skeen, Colombo).—Hansom Cabs; by J. C. Robinson (Darling and Son, London).—Artificial Cultivation of Vaccine Lymph; by J. Dougall, M.D., &c. (Macdougall, Glasgow).—What is an Earthquake? by J. Davis, C.E. (Houlston and Son).—Wintering Abroad; by Alfred Drysdale (Virtue).—Placenta Prævia; by J. F. Le Page, M.D.—Ignaz Philipp Semmelweiss; von Dr. Jacob Bruck (Prochaska, Wien).—Magazines for October: Good Words, Sunday Magazine, Leisure Hour, Sunday at Home, Boys' Own Paper, Girls' Own Paper, Scribner's Monthly.—The Arrangement and Construction of School Sanatoria; by Charles E. Paget (Churchills).

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BOWKER, EDWARD H., L.R.C.S., L.R.C.P.Ed., has been appointed Medical Officer for the Fylingdales District of the Whitby Union.

BROCKWAY, ARCHIBALD B., M.R.C.S., has been appointed Assistant Medical Officer to the South-Eastern Hospital, Metropolitan Asylums Board, New-cross.

CAMPBELL, WALTER SCOTT, M.B., C.M. Univ. Glas., has been appointed Public Vaccinator for the Crediton District of the Crediton Union, vice J. A. Edwards, resigned.

COONEY, JOHN EDWIN, L.R.C.P., D.P.H. Camb., has been appointed District Medical Officer for the Fulham Union, No. 2 District, vice T. A. Appleton, M.R.R.S., transferred to No. 1 District.

LEWIS, JOHN NICHOLLS, M.R.C.S., L.R.C.P.Lond., L.S.A., has been appointed Resident Clinical Assistant to the East London Hospital for Children and Dispensary for Women, Shadwell, E.

MILNER, E. TAYLOR, M.A., M.B. Oxon., M.R.C.S., Resident Medical Officer of the Convalescent Hospital, Uheadle, in connexion with the Manchester Infirmary, has been appointed Resident Surgical Officer to the Royal Infirmary, Manchester.

HILPS, PHILIP, M.R.C.S., L.S.A., has been appointed Medical Officer for the Fourth District of the Faversham Union.

ROSS, JAMES, LL.D., M.D., C.M. Aber., F.R.C.P. Lond., has been appointed Joint Professor of Medicine at the Owens College, Manchester.

SEALY, FRANCIS M., M.R.C.S., L.S.A., has been appointed Medical Officer for the Sutterton District of the Boston Union.

SMYTH, ROSS V. B., M.A., M.D., B.Ch.Dub., has been appointed Medical Officer for the Third District of the Barnet Union.

THOMSON, J. A. M., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the Workhouse of the Bradford (Wilts) Union.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary £150 per annum (with an allowance of £30 per annum for cab hire), and furnished rooms, fire, lights, and attendance.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon. Salary to commence at £30 per annum, with board, washing, and lodging.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor.—House-Surgeon. Salary £100 per annum, with board and lodging.

CUMBERLAND INFIRMARY, Carlisle.—Assistant House-Surgeon. Salary £40 per annum, with board and lodging.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark-bridge-road, S.E.—Registrar and Chloroformist. Salary £30 per annum, with an additional £20 if the post is held for twelve months.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Junior Resident Medical Officer. Salary £50 per annum, with board and residence in the hospital.

HOSPITAL FOR WOMEN, Soho-square, W.—Two Clinical Assistants.

INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Senior House-Surgeon. Salary £60, rising to £70, with board and residence.—Also Junior House-Surgeon. Salary £50, rising to £60.

LINCOLN UNITED FRIENDLY SOCIETIES' DISPENSARY.—Resident Medical Officer. Salary £200 per annum, midwifery and vaccination fees, coals and gas, with house free of rates.

NORTH LONDON CONSUMPTION HOSPITAL.—Physician.

ROTHERHAM HOSPITAL.—Assistant to the House-Surgeon. Rooms, commons, and washing, in lieu of salary.

ROYAL HANTS COUNTY HOSPITAL, Winchester.—House-Surgeon. Salary £100 per annum, with board and lodging.

ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM, City-road, E.C.—House-Surgeon. Salary £50, with board and residence in the hospital.

ST. MARY'S HOSPITAL, Quay-street, Manchester.—House-Surgeon and Resident Obstetric Assistant Surgeon. Salary for the first year £130, with board and residence.

TAUNTON AND SOMERSET HOSPITAL.—Honorary Surgeon.—House-Surgeon. Commencing salary £100, with board, lodging, and washing.

VESTRY OF ST. MARY, Newington.—Medical Officer of Health. Salary £300 per annum.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House-Surgeon. Board, lodging, and attendance. House-Physician. Board, lodging, and attendance.

Births, Marriages, and Deaths.

BIRTHS.

ADAM.—On the 6th inst., at 70, Fernhead-road, W., the wife of C. Donovan Adam, L.R.C.P., M.R.C.S., of a son.

BAKER.—On the 8th inst., at Dawlish, S. Devon, the wife of A. De W. Baker, L.R.C.P.Lond., M.R.C.S., of a son.

CHAVASSE.—On the 9th inst., at Barnt-green, Worcestershire, the wife of Thomas Frederic Chavasse, M.D., of a son.

GUBBINS.—On the 7th ult., at Naini Tal, North West Provinces, India, the wife of W. L. Gubbins, Surgeon-Major, Army Medical Staff, of a son.

HARRIES.—On the 6th ult., at Suffolk-street, Pall-mall, the wife of Arthur Harries, M.D., of a son.

HARBORD.—On the 26th ult., the wife of E. Augustus Harbord, M.R.C.S.Eng., L.R.C.P., of 36, Bedford-square, W.C., of a son.

HUME.—On the 6th inst., at Sutton-place, Hackney, the wife of Walter A. Hume, M.R.C.S., L.S.A., of a son.

HUNTINGTON.—On the 6th inst., at 59, South-street, St. Andrews, the wife of W. Huntington, M.R.C.S., L.R.C.P.Lond., of a daughter.

KANE.—On the 7th inst., at Lanherne, Kingston-hill, the wife of N. Henry K. Kane, M.D., of a son.

MACKERN.—On the 7th inst., at Cambridge-street, Hyde-park, W., the wife of John Mackern, M.D., of a daughter.

REID.—On the 4th inst., at Oakley, Kirkcudbright, N.B., the wife of W. S. S. Reid, M.B., of a son.

SUTTON.—On the 8th inst., at Bagdad, the wife of Hy. Martyn Sutton, M.R.C.S., L.R.C.P., Medical Missionary, C.M.S., of a son.

WHITE.—On the 7th inst., at Harley-street, the wife of W. Hale White, M.D., of a son.

MARRIAGES.

DALZIEL—WADDELL.—On the 6th inst., at Palmerston-place Church, Edinburgh, T. Kennedy Dalziel, M.B., C.M. Ed., to Madge, third daughter of John Waddell, Esq., of Inch, and Belford-park, Edinburgh.

DANIELL—HENDERSON.—On the 6th inst., at All Saints', Wandsworth, by the Rev. William Reed, Vicar, Richard Thomas Daniell, M.B.T.C.D., F.R.C.S.I. (Exam.), to Margaret Marion, fourth daughter of the late Robert Henderson, of Leghorn and Glasgow. No cards.

HORSLEY—BRAMWELL.—On the 4th inst., at St. Margaret's, Westminster, Victor Horsley, F.R.S., to Eldred, eldest daughter of Sir Frederick Bramwell, D.C.L., &c.

VENN—STEVENS.—On the 8th inst., at Holy Trinity Church, Tulse-hill, by the Rev. N. A. Garland, M.A., Vicar of St. Matthew's, Brixton, assisted by the Rev. W. C. Moore, M.A., Vicar of the Parish, Albert John Venn, M.D., of 27, George-street, Hanover-square, to Emma, daughter of the late William Stevens, of Springfield, Tulse-hill.

WATKINS—CHAMBERS.—On August 10th, at St. Andrew's, Summer-hill, New South Wales, by the Rev. James Clarke, Sydney C. Watkins, M.R.C.S.E., of Manly, New South Wales, to Florence Bessie, daughter of Thomas Chambers, M.D., of Sydney, formerly of Chester-square, London.

DEATHS.

MACGRATH.—On the 7th inst., at Colville-terrace, W., Wm. Michael MacGrath, M.K.Q.C.P.I., L.R.C.S.I., aged 46.

MARTIN.—On the 28th ult., at 13, South-place, Kennington-park, Hon. Brigade-Surgeon James Martin, aged 57.

ROOKE.—On the 8th inst., at Redhill, B. P. Rooke, M.D., formerly of the Medical Department, Bombay Army, aged 86.

SPOONER.—On the 10th inst., at 1, Maida Vale, London, Edward Oke Spooner, F.R.C.S., late of Blandford, Dorset, in his 80th year.

TOWNE.—On the 9th inst., at his residence, Rectory-road, Stoke Newington, Alexander Towne, jun., M.R.C.S., L.S.A., aged 47.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, October 13th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Oct. 7	30·06	N.W.	52	50	82	60	49	...	Overcast
,, 8	29·94	W.	53	50	89	63	50	...	Cloudy
,, 9	29·73	W.	55	51	62	57	50	...	Overcast
,, 10	29·41	W.	48	46	60	50	45	·09	Overcast
,, 11	29·72	W.	41	38	78	49	35	·27	Bright
,, 12	29·67	N.W.	37	35	72	47	33	·04	Cloudy
,, 13	29·78	W.	36	34	...	43	31	...	Foggy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

THE DOSAGE OF COCAINE.

G. P.—It is impossible to name a dose that is safe for all individuals, since many persons are unfavourably affected by even small quantities of cocaine. As a general rule no external application weaker than 20 per cent. is satisfactory. Taken internally, cocaine may be exhibited in doses of from a quarter of a grain to a grain. For hypodermic administration a 10 per cent. solution should be employed, but not more than ten minims used. In operating for fistula, for the removal of small tumours, or for circumcision, first paint the surface with a 20 per cent. solution, then wait five minutes; after this inject hypodermically a minim or two of a 10 per cent. solution by various punctures around the seat of operation. To extract teeth under cocaine, at least a grain must be injected into the submucous tissues by three punctures opposite the root or roots of the tooth to be removed. Operate ten minutes after this. Great care is needed, as cocaine produces faintness, and in some persons a degree of collapse very alarming, and not devoid of danger. Cocaine rapidly develops fungus, which renders its solutions dangerous.

Mr. Lawson Tait (Birmingham).—We shall be glad to receive a report of the case mentioned by our correspondent.

Mr. V. B. Clarke will find a notice of the matter in our present issue.

EXAMINATIONS AT THE APOTHECARIES' HALL.

To the Editors of THE LANCET.

SIRS,—As a regular subscriber, allow me to point out through the medium of your journal the unbusiness-like way in which examinations are conducted at the Apothecaries' Hall. As I possessed the M.R.C.S. only, I entered for the Materia Medica, &c., of the Hall, in order to obtain the L.S.A. to register. Accordingly on Wednesday last I presented myself for the written papers, and some eighteen of us were then told to be present next day at 2 o'clock for Practical Chemistry, to be followed by the complete *viva voce*. This we accordingly did, and at 3 o'clock we were marched into a room where we were kept till 6 P.M., before a single examiner arrived. Imagine then in what a nervous state most of the candidates were, and little wonder if some were too muddled to answer properly. Most of us were asked which hospital we came from—a question I consider highly improper. We were then all kept till the result of the whole examination was arrived at (about 8 P.M.), and though I happened to be one of the fortunate ones, I cannot help thinking that with your powerful aid something could be done to make the Hall examinations more satisfactory.—I am, Sirs, yours truly,

Oct. 7th, 1887. M.R.C.S.

OMEIRE, AN AFRICAN MILK DRINK.

HERR MARLOTH describes in a German Pharmaceutical journal an African milk drink, called "omeire," which he saw prepared by the natives of the Herero tribe, who employ themselves almost entirely in rearing cattle, some of the chiefs possessing as many as 10,000 head. They do not, except on festival occasions, slaughter them, but live on their milk. The omeire is prepared in the following manner:—Fresh milk is poured into calabashes which have not been washed since the operations of the previous day, and which therefore contain some milk. A number of these calabashes are connected together by a network of strings, so that a man sitting on the ground can keep them all in a continual state of agitation. This goes on for from one to three hours, according to the heat of the weather, the fermentation process, of course, progressing more rapidly when it is hot. The omeire is then finished. It is a somewhat thick, half-curdled fluid, something like buttermilk, with a slightly acid and pungent, but very agreeable, taste. When kept it becomes more acid. Indeed, Herr Marloth found that when it was twenty-four hours old it set his teeth on edge. The natives, however, seem to prefer it when it is very sour. He was not able to examine omeire chemically on the spot, but brought some home with him, into which he had put salicylic acid thirty hours after it was made, in order to prevent any further alteration. This he found contained 0·007 per cent. of alcohol; but he thinks it probable that in the fresh state a larger proportion of spirit exists in the drink, which on keeping is very quickly converted into acetic acid.

X.Y.Z.—The answer to our correspondent's questions can scarcely be given by anyone but himself, so much depends on his own estimate of the value of his time. Besides there are no data on which to estimate the work of such an appointment. It would be better to defer fixing the remuneration for a time.

Dr. Pedro S. de Magalhaes (Rio de Janeiro).—We have been unable to find any further reference to this subject in the writings of helminthologists.

R. H.—Sir B. H. Sieveking's little work, "Medical Advice on Life Assurance," would no doubt answer the purpose.

Mr. R. H. Wagner.—We cannot insert any more letters at present on this subject.

"THE DUODENUM: A SYPHON TRAP."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Aug. 13th last, on page 308, Mr. Collier makes an ingenious comparison between the duodenum and a syphon trap, and tries to explain that the curve of the duodenum serves the important function of a syphon trap in the human economy, by preventing fetid intestinal gases from ascending into the stomach and escaping by the mouth. Being somewhat in arrears in my reading, I regret I did not notice the interesting article earlier. As I feel somewhat puzzled and am not satisfied with the trap theory, I would consider it a great favour if Mr. Collier or some of your numerous readers would be pleased to enlighten me on the subject. I can bring myself to imagine the curve of the duodenum acting as a syphon trap, in the erect or sitting attitude, when its curve is directed downwards, but I do not see how it can serve as such while one is lying prone, or supine, or to his left. Furthermore, disregarding the peristaltic and propulsive action of the intestines, I can also imagine that the curve is "kept constantly full of fluid" discharged from the common bile-duct so long as the trunk is erect, and the curve looking down; but I fail to understand how the fluid would keep at the curve to check the passage upwards of the gases when any other ordinary posture is assumed. In other words, a syphon trap has always its curved tube directed downwards, to retain the fluid and resist the entrance of gases. If turned sideways (i.e., if put in a horizontal plane) or with its curve directed up, the fluid would run off, and it would cease to be a trap. This, I imagine, is exactly what would happen in case of the curve of the duodenum, more or less, when one lies down on his back, or face to his side. The curve, though constant, does not adapt itself to the ordinary postural changes so as to be a good trap always; and fetid gases would certainly find plenty of opportunities to get into the stomach, and thence further on. The constant presence at the curve of secretions from the liver and pancreas, in quantity more than could be accounted for by its proximity to these, and sufficient to fill it up so as to efficiently obstruct the gases reaching the stomach, has not been demonstrated. Again, the intestinal walls are distensible, and the fluid at the curve in any quantity cannot of itself withstand the pressure of gases liberated below. No provision exists resembling a ventilating trap to meet the exigency of extraordinary gas pressure as would be met with in special conditions giving rise to intestinal obstructions. What is there to prevent fetid gases under high pressure displacing the fluid and gaining the stomach? Add to this the reversed peristaltic action present at times. This would cause the fluid at the curve to regurgitate into the stomach and upwards. It can easily be imagined how powerful inverted peristalsis is when one sees injections being occasionally vomited. When thus the fluid is carried off from the duodenal trap, what is there to oppose the gases making their way to the stomach?

I remain, Sirs, your obedient servant,

P. S. DAVAR, L.M. and S. (Bombay).
Assist. Surg. Sirsi Charitable Dispensary.

Sirsi, Bombay Presidency, Sept. 19th, 1887.

"THE RADICAL CURE OF RUPTURE."

AN American is at present making the most benevolent attempt to convince the British public that he is in possession of a radical cure for hernia, and he is circulating advertisements and a book which are meant to convince the most doubting. The book certainly does tell some wonderful stories. Amongst other feats a testimonial to this great genius, "Dr. Sherman," is produced, purporting to be from *The Lancet*, 1874. We need not say that we never published such a thing. If all the other testimonials are equally incorrect the public is to be pitied. Mr. Sherman may say it is some other journal of the same name from which he quotes. That will not avail him with honest people in this country, who, reading in a book which he puts into their hands a quotation from *The Lancet*, will certainly construe it to mean THE LANCET of England. A word to the wise is enough.

Enquirer.—Such qualifications do not justify the title mentioned. There are no legal difficulties in the sense that any legal action would be likely to follow.

Dr. Perdigao (Porto).—We cannot exchange.

"LEICESTER PROTECTED BY VACCINATION."

To the Editors of THE LANCET.

SIRS,—Your special commissioner, in his article on "Leicester and its Immunity from Small-pox," published in THE LANCET of June 5th, 1886, says:—"Tell it not in Gath—but it is even so,—Leicester owes its protection, even with all its boasted and really good sanitary arrangements, to VACCINATION! or rather, I should say, to *revaccination*. All the persons in the house of the patient are vaccinated or revaccinated." What is this statement based on? Simply on intimation of the recently appointed medical officer of health that on the twenty-fifth importation of small-pox during nine years *two* only out of nearly a dozen persons who came in contact were induced to submit to the operation. Even the nurse attending the case was not revaccinated. After a careful search through the medical reports during nine or ten years I cannot find a word about the vaccination or revaccination of a single individual during twenty-four importations of small-pox. The only reference is that in the report of 1886 on the twenty-fifth importation. The only measures recorded are prompt isolation, quarantine, disinfection, and sanitation. Quarantine is optional, and instances of refusal have been known; but usually the people cheerfully agree to it, and they doubtless would elsewhere quite as readily as they submit to vaccination.

The following extracts from health reports confirm what I have said. In 1883, after recording seventeen importations of small-pox, Dr. Johnston says: "Notwithstanding this large number of importations the disease has always been stamped out. ..... The continued exemption from small-pox experienced in Leicester under so many instances of its importation is highly satisfactory, and is *altogether due* to the success which has hitherto attended the efforts of the health committee in securing not only the immediate reporting, but also the prompt removal to hospital, of all the cases as they come under notice." In 1884 three outbreaks are recorded. Dr. Johnston says: "Owing to the immediate removal of all the inmates of each house where the disease appeared to the fever hospital, together with the thorough disinfection and lime-washing of the infected houses, the further spread of the disease was arrested." The further part of the report practically repeats the above. In 1885 the report was written by Dr. Tomkins. He says: "During the year small-pox has made its appearance at four points in the town, &c. ..... By the prompt and vigilant action of Inspectors Braley and Buxton all these cases were at once removed to hospital, and those persons who were known to have been possibly infected by them were removed to the quarantine wards." In another part of the same report the Doctor says: "In the case of small-pox and scarlet fever every effort is used to induce the patient or patient's friends to avail themselves of the hospital." The 1886 report, which has given rise to all the misrepresentation, has been quoted so often that I will only give a few words: "The usual prompt measures were adopted. The patient was removed to the small-pox wards, and two other persons who had been in contact with him were subjected to fourteen days' quarantine, and were revaccinated."

In the above quotations I have given all that is said about vaccination or revaccination in the reports so far as they relate to the actual treatment of small-pox cases during twenty-five importations in Leicester for nine or ten years. I maintain that they totally refute the statement of your Special Commissioner.

Now, as to the second part of his assertion. He says: "Every person brought into contact officially with the case of small-pox—the medical officer of health, the inspectors, the nurse and matron of the infectious hospital—are all vaccinated and revaccinated." The following facts I have personally ascertained, and they may be verified if necessary. The present sanitary staff comprises the medical officer, one chief inspector, three sub-inspectors, and one office clerk, all of whom were in office at the time of your inspector's visit. Of this number the chief inspector, one sub-inspector, and the clerk have never been vaccinated since infancy, and the protection must have ceased long ago. Of the other sub-inspectors, five years in one case and two years in the other have elapsed since the operation was performed. The nursing staff consists of the matron and two nurses, who were in office at the time of your Special Commissioner's visit. Of these the matron has not been vaccinated since childhood, and nineteen years have elapsed since one of the nurses was revaccinated; the protection has therefore ceased. The other nurse was vaccinated at West Hulme Hospital on the receipt of a small-pox patient, but proved insusceptible. She states that about three weeks after proving insusceptible to vaccine she fell of variola, and had small-pox—an experience unique and interesting to the medical world. Of four nurses since appointed, two only have been revaccinated since childhood. The other person concerned is the porter at the hospital, who was revaccinated about five years since. At the last admission of a small-pox case the nurse attending was not revaccinated, although an assistant was operated upon. We have therefore in all ten persons who were in office at the time the special report was made, four of whom have never been vaccinated, and one in whom the protection has vanished many years ago. Of the remaining five, the most recent revaccination was performed two years ago, unless Dr. Tomkins has himself been revaccinated within that period. Not one of the nursing staff has been vaccinated since appointment, excepting the assistant nurse named above.

In the presence of this overwhelming refutation the question arises, Who could have given the information which led the Commissioner astray? I lay no blame upon him, excepting this—he should have exercised more care. The whole matter calls loudly for a searching investigation in the interest of all concerned.

After this I hope nothing further will be heard of unfairness or omission; and the *amende honorable* is due from any who have thought proper to insinuate a charge of *suppressio veri* against

Yours truly,
J. T. BIGGS,
Leicester, Oct. 5th, 1887. Member of the Board of Guardians.

*** We have, from an excessive disposition to give fair-play in this life and death controversy, given Mr. Biggs space which we could very ill spare for his long letter. He spoke in his letter to *The Times* of one member of the sanitary staff who had not been revaccinated. He now thinks he has discovered that four have not been revaccinated, and, with that fine confidence so lacking in experts, he puts in a fifth, "in whom the protection has vanished many years ago." He asks us to take these facts on his personal authority. He will forgive us for saying that we do not consider him a good authority on such questions. We should entirely approve of inquiry by competent and unprejudiced persons. Mr. Biggs is easily satisfied of any point on which he desires to be satisfied. For example, it was part of our Commissioner's information that all persons in Leicester in the houses in which small-pox cases occurred were promptly revaccinated. Mr. Biggs looks through the reports, and seeing little allusion to such operations in them concludes that they did not take place. Our Commissioner did not say they were reported, but that this was the practice of the medical officers of health—a statement not denied by the gentlemen affected. Mr. Biggs' letter contains important evidence of our proposition that persons not revaccinated are very liable to take small-pox when exposed to it. One of the nurses at the Leicester Small-pox Hospital had been vaccinated (revaccinated?) at West Hulme Hospital on the receipt of a small-pox case, but "proved insusceptible." In about three weeks "after proving insusceptible" "she fell [ill] of variola and had small-pox." Mr. Biggs and his school think this nurse's case a "unique" one for the study of the "medical world"; instead of which we are constantly telling him it is the common case. A person is revaccinated and does not take, and votes herself, or is voted, "insusceptible." On being exposed to small-pox she falls a prompt victim to it, clearly showing that she was susceptible, and that the vaccination was simply not effective. A man like Mr. Marson vaccinating with arm-to-arm lymph was so unerring in his skill that the nurse might go, and for fifty years did go, straight into the small-pox hospital unscathed. But most vaccinators had better see their revaccinations "take" before sending their nurses to such a fiery test. Mr. Biggs' refutation leaves a staff of officials, every one of whom he admits to be vaccinated—and many of whom he allows to have been revaccinated. It suits his convenience to say several times dogmatically of those of the staff who have not been vaccinated for years that "the protection must have ceased." Where did Mr. Biggs get his precise knowledge of the exact time at which the virtue even of a first vaccination ceases? The evidence is that at all ages it has much virtue in modifying the severity and fatality of the horrible disease. If Mr. Biggs again writes on the protection of Leicester, let him be careful to say that all persons in immediate attendance on the patients are vaccinated or revaccinated, and that Leicester herself is not yet so enlightened, or so hardy in her belief in mere sanitation, as to receive small-pox by any but vaccinated persons. We are glad to agree up to a certain point with Mr. Biggs. Good police arrangements for small-pox patients are useful. Small-pox obliterates all questions of personal liberty in the person affected, and even such a Radical community as Leicester finds ways of shutting them up. But what about the protection of the people of Leicester who go to Sheffield and the other benighted parts of the United Kingdom? Leicester people cannot be all shut up in Leicester? When the deadly disease and they, together, are abroad, what about their protection?—ED. L.

"NEW METHOD OF VENTILATION."

In reply to a correspondent of last week, we are enabled to state that the addresses of Messrs. Young and Mors are as under:—10, Cathedral-close, Lincoln, and 30, Queen-square, London, W.C.

Bones.—The placard in question is not to be commended. A true hospital should not be situated in private premises, and any advertisement of it should apply rather to the committee which guarantees it than to individual surgeons.

Cyclops.—The terms mentioned are the ordinary conditions of membership in provident dispensaries. The remuneration of medical men is not sufficient.

Mr. W. Ras.—Our correspondent should apply to any of the principal London instrument makers.

Mr. J. R. Nott.—Our arrangements will not permit us to entertain the proposal.

THE NAVAL MEDICAL SERVICE.

To the Editors of THE LANCET.

SIRS,—I am glad to see "Surgeon R.N." airing the subject of occasional general hospital practice as being desirable for naval surgeons after long sea service, as, though they may have many opportunities of studying subjects not met with by the ordinary general practitioner, they are likely to get wofully rusty in some of the commoner branches of the profession. Such a short course as he mentions would be an immense boon to any man who had not lost all interest in his profession. Modifications of his view of the case I fancy would be necessary, especially as regards the examination. I think that a certificate of having attended ward practice and operations given by the dean or visiting surgeons would be sufficient, as it is difficult to conceive any examination which would show the extent to which a surgeon had improved himself during the course of study; the book work, which presumably he has kept up, should have been sufficient to enable him to pass any ordinary examination in writing. Even the opportunity of a course of study in a general hospital might be dispensed with were every surgeon on return from long foreign service to be appointed for a few months, either as a supernumerary or otherwise, to one of the naval hospitals. As it stands at present, few surgeons have this opportunity, as those who have once served at a hospital are the most likely to be appointed to another, as in several cases in my mind's eye at the present moment; whilst the surgeon from the gunboat on the West Coast goes to a harbour ship, whence all important cases are immediately sent to hospital, his experience having thus a downward tendency. Haslar, Plymouth, and Chatham, to which I may add Malta, Hong Kong, &c., would give ample scope for the rusty surgeon to recruit his knowledge, especially just before his examination for staff surgeon. The cases not met with in these establishments are the diseases of women and children, subjects of but little importance in the naval service; whilst the loss of this branch is more than counterbalanced by the great number of the commoner diseases met with in the navy. Let all surgeons have an equal chance of naval hospital practice, with lectures at the naval hospitals by competent seniors, and the inexperienced naval surgeon would soon become a thing of the past.—Yours truly,

Oct. 10th, 1887. ANOTHER NAVAL SURGEON.

"THE WASTE OF LIFE BY PREVENTABLE DISEASE."

To the Editors of THE LANCET.

SIRS,—At the present time, when we are again visited by scarlet fever in an epidemic form, it may be considered desirable after perusal of the very interesting paper read before the Sanitary Institute of Great Britain by Mr. J. S. Haldane at Bolton, to make some change in the nature of the internal surface of houses. The contamination of the surface by dust was found to have an effect on the number of micro-organisms present in the rooms, a progressive contamination of the floors being the producing agent. The important deduction to be drawn from these researches appears to me to be that the surface should be of a non-porous character, rendering the absorption of noxious matter out of the question. I am, Sirs, yours obediently,

SAMUEL LEE,

Barking, Sept. 29th, 1887. Medical Officer of Health.

CATARACT OPERATIONS.

To the Editors of THE LANCET.

SIRS,—Will any of your readers kindly give me the usual percentage of success in cataract operation with Graefe's modified operation or the operation most approved of at present? If the percentage of success from the hands of all operators in the Moorfields Eye Hospital for the last five years be given, this will suit my purpose. May I ask if a surgeon who gets a percentage of only seventy-four successful cases is justified in continuing to operate for cataract?—I am, Sirs, yours faithfully,

Sept. 20th, 1887. SAPO MOLLIS.

SWALLOWING A COIN.

To the Editors of THE LANCET.

SIRS,—The following case may be deemed sufficiently interesting to be placed before the readers of THE LANCET.

A child aged six swallowed a bronze halfpenny on Sept. 26th last, and passed it in stool on Oct. 3rd. The coin thus took nearly eight days to pass. No inconvenience was perceived. No treatment except as thick food as a child of that age could take was used. The coin was blackened on the surface. I am, Sirs, yours faithfully,

Oct. 10th, 1887. H. P. S.

THE VALUE OF SHORTHAND TO THE STUDENT AND PRACTITIONER OF MEDICINE.

To the Editors of THE LANCET.

SIRS,—That the employment of shorthand is of paramount moment to students—more especially those of medicine—cannot be gainsaid. I do not think it is in use much by London students, at any rate, at the cliniques (so far as I have been able to observe), while at Edinburgh I have been surprised at the diligence with which *verbatim* reports are taken of systematic lectures and cliniques, and the students do not appear to lose touch of the gist of the professor's teaching. And not only are *verbatim* notes taken at the University classes there, but diagrams made by the professors are rapidly copied beautifully. The diagrams are made on the board by different coloured chalks, and these are copied by the same coloured pencils. These notes are afterwards rendered into longhand, the drawings reproduced, and the mere rendering and reproduction suffice in a great measure, as I learnt, to impress and digest each individual lecture. A great many of these students had, as I learnt, previously employed shorthand in the University classes for Arts and Science degrees, as a great number of these are graduates in Arts and Sciences (Masters of Arts and Bachelors of Science), so that it comes like A B C to them to take down every word as uttered by the professor, notwithstanding the rowdyism of those who occupy the higher and more distant benches in the lecture theatres. It is of greater importance there, more particularly in certain subjects, to master the professors' lectures rather than read standard works. The diligent and able student not infrequently makes a double use of the shorthand system by reproducing neatly, or getting them copied at some of the University booksellers', and selling the lectures, word for word almost, and fully illustrated, for instance, the botany, natural history, pathology, and other lectures from large plates hung up or drawings made previously to the lecture by the professor or his class assistant. The best students go to the lecture room a long time beforehand to copy the diagrams, synopsis of the lecture, &c. Many of the students, however, who do not know shorthand still take almost *verbatim* notes by longhand. There is no doubt that shorthand is of great service in practice, more especially in the consulting room, where the physician can take notes fully as he is questioning and examining, and will be of great avail if the same patient consults the physician after a distant period again; and also for the employment of these notes afterwards for clinical study.

Dr. Gowers' paper, published in THE LANCET of Oct. 8th, is well worthy of the close attention of students, who should certainly strive to master Pitman's shorthand system, which is the one, I believe, mostly adopted by reporters on the newspaper press, who can write at the rate of from 200 to 250 words a minute easily. The correction, revision, and rendering into longhand and preparation for the press do not take much time. Many of the gentlemen of the newspaper press who are rapid *verbatim* reporters are excellent descriptive writers, and can summarise or rapidly write leaders from their own shorthand. This being so, the medical student can afterwards summarise the lecture and thus omit repetitions. Two students, who are friends, can both take shorthand notes, and afterwards compare and supplement deficiencies. I am, Sirs, yours truly,

South Kensington, Oct. 7th. JOHN LUCAS, M.D.

ANTIPYRIN IN MIGRAINE.

To the Editors of THE LANCET.

SIRS,—I was recently called to Mrs. F——, fifty-one years of age, who was suffering severely from migraine, to which she had been a martyr for several years, never having passed a single day without an attack of greater or lesser intensity. I immediately prescribed antipyrin, giving it in doses of fifteen grains three times daily. I saw her again to-day, and learned that the first dose gave marked relief, and that from the second day of the treatment up to the present time she had been entirely free from pain. Comment seems unnecessary.

I am, Sirs, respectfully yours,

Paris, Oct. 6th, 1887. EDWARD WARREN-BEY, M.D., C.M., LL.D.

NOISES IN THE EARS.

To the Editors of THE LANCET.

SIRS,—Kindly allow me to ask through your valuable journal for any hints as to treatment in a case of exaggerated noises in the ears as a sequel of severe typhoid. The fever ended early last April, but the sounds seem to have been ever present to my patient, who is a married man and a builder's clerk, aged thirty-six years. In other respects he is well, and no organic change can be detected in the ears. No treatment so far seems to touch the case. He says the noises almost drive him mad.

I am, Sirs, faithfully yours,

Oct. 8th, 1887. A SUBSCRIBER OF TWENTY YEARS' STANDING.

INSTITUTIONS FOR THE DEAF AND DUMB.

To the Editors of THE LANCET.

SIRS,—In your issue of the 8th instant, a correspondent, "B.," wishes to know of any institution where a boy who is deaf and blind may be educated. I shall be glad, if he puts himself in communication with me, to give him full information. We have had one or two similar cases, and very successfully overcame the great difficulties.

I am, Sirs, yours truly,

WM. MARTIN, Manager.

Royal Blind Asylum and School, 58, Nicolson-street, Edinburgh, Oct. 10th, 1887.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir J. Paget, London; Dr. Julius Pollock, London; Mr. Bellamy, London; Sir E. Lechmere, London; Dr. T. D. Pryce, Nottingham; Dr. Braxton Hicks, London; Dr. Lewers, London; Mr. L. Humphry; Mr. Fitzroy Benham, London; Mr. Frewer, London; Dr. Saundby; Mr. Lawson Tait; Dr. Warren-Bey, Paris; Mr. J. A. Bloxam, London; Dr. W. T. Gairdner, Glasgow; Mr. J. H. Morgan, London; Dr. McF. Gaston, Chicago; Dr. R. Kirk, Partick; Dr. J. Lucas, London; Mr. Klugh; Mr. H. J. Clements, Brighton; Dr. Körösi, Buda Pesth; Dr. Seymour Taylor, London; Mr. Davar, Sirsi; Dr. Tily; Messrs. Masters and Son, London; Dr. Bell Taylor, Nottingham; Dr. Newth, Hayward's Heath; Mr. Martin, Edinburgh; Dr. Jas. Adams, London; Dr. Percy Boulton, London; Mr. A. Barker, London; Messrs. Partridge and Cooper, London; Mr. Hawkins-Ambler, Riley; Messrs. Hampton and Son, London; Dr. A. J. Jacob, Dublin; Mr. J. R. Nott; Mr. Harry Furniss, London; Dr. J. L. Steven, Glasgow; Messrs. Wright and Co., Birmingham; Mr. R. G. Lender, Berlin; Dr. Munro, South Shields; Mr. H. Usher, London; Dr. W. Sharp, Rugby; Dr. Sinclair White, Sheffield; Dr. Roughton, London; Mr. Pirkis; Messrs. Allen and Son, London; Mons. E. Perdigas; Mr. S. Lee; Messrs. Gordon and Co., London; Mr. Wm. Tebb, London; Messrs. Phillips and Son, London; Mr. G. Rendle, London; Mr. Venman; Messrs. Eason and Son, Dublin; Mr. Jefferson, Newcastle-on-Tyne; Messrs. W. and A. Gilbey, London; Mr. Saunders, Manchester; Messrs. Starks and Co., London; Mr. Ivory, London; Dr. Curran; Messrs. Warren and Co., Bristol; Dr. Fitzgerald, Brighton; Mr. Clarke, Doverscourt; Mr. H. Bigg, London; Mr. Hawkins, London; Mr. Gordon, Peterfield; Mr. Parson, Worcester; Miss Mead, Kingsale; Mr. Hosegood, Witherhead; Mr. Mitchell, Merton; Mrs. Ramsey, Buxton; Mr. W. A. Frost, London; Mr. Roathwell, Middlesbro'; Messrs. Sutton and Sons, Reading; Messrs. Birch, Dublin; Dr. Moullin; Messrs. Bell and Co., Edinburgh; Dr. Peters, Buckley; Mr. Lewis, Bristol; Messrs. May and Co., London; Mr. Eastwood, Blackburn; Dr. Higginson, Bangor; Mr. Davidson, Edinburgh; Mr. J. Vickers, London; Messrs. Smith and Son, Manchester; Mr. Terry, Winchester; Messrs. Blendenning and Co., London; Mr. Browning, Manchester; Dr. Corby, West Coast of Africa; Dr. Carlisle, London; Mr. Park, Glasgow; Mr. Davies, New Quay; Mr. Moning, London; Mr. Mullin, Salford; Mr. Macarthny, Liverpool; Dr. Hamilton, Bury; S. Leiterschofen, Homburg; Deaconess Hisle, Tottenham; Another Naval Surgeon; Fellow; The Director-General of the Navy Medical Department; Medicus, London; Cymro; A Subscriber of Twenty Years' Standing; Medical, Liverpool; R. H.; M.R.C.S.; H. F. S.; R. P., Folkestone; A Student; R. H. T.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Adams, London; Mr. Huntington, St. Andrews; Messrs. Thompson and Son, London; Mr. Wormald, Manchester; Messrs. Ratcliff and Co., Liverpool; Mrs. Winpenny, Ainsdale; Messrs. Dingwall and Co., London; Mr. Williams, Williton; Mr. King, Woburn; Dr. G. Hanby, London; Mr. Scott, Manchester; Mr. White, Bayswater; Mr. Keeling, Birmingham; Mr. Hughes, Holloway; Mr. Robertson, Grays; Mr. Genhill, Derby; Mr. Wallis, St. Mawes; Dr. Muirhead, Edinburgh; Dr. Artsong, Kansas; Mr. Guest, Darlington; Mr. Foote, Cirencester; Mr. Schafer, London; Mr. Wilmott, Malta; Mr. Morgan, Stafford; Rev. J. Summerhayes, Ealing; Mr. Mainwaring, West Kensington; Dr. Powell, London; Mr. Hine; Mr. Webster, Merthyr Tydfil; Dr. Sinclair, Nottingham; Dr. Jones, Bacup; Dr. Somerville; L. M.; Medicus, Nottingham; A., Liverpool; Medical Assistant, New Whittington; Traveller; Medicus, Cardiff; X. N., London; W. G. S., Kilburn; Margaret, Loughboro'; Dr. A. M., London; Omega, Newport; Surgeon, Hulme; Maternity; B. B., Stamford-hill; N. L. P., Hull; A. S., Leicester; C.H., Bradford.

Liverpool Courier, Leicester Daily Post, Beverley Echo, Midland Free Press, Washington Post, Malta Standard, &c., have been received.

Medical Diary for the ensuing Week.

Monday, October 17.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Opening Address by the President (Dr. J. Hughlings Jackson).—Dr. Clifford Allbutt (of Leeds) will read a paper on Simple Dilatation of the Stomach.

Tuesday, October 18.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.
THE PARKES MUSEUM OF HYGIENE.—8 P.M. Mr. C. E. Cassal: Food, (including milk), Sale of Food and Drugs Act.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Hadden: Lymphadenoma.—Mr. D'Arcy Power: Congenital Umbilical Hernia.—Dr. Hale White: Carcinoma of Pancreas, and Semilunar Ganglia.—Mr. Bland Sutton: The Guttural Pouches of Horses.—Dr. Handford: Dilatation of Œsophagus.—Dr. A. H. Robinson: Aneurysmal Varix in a Stump.—Mr. A. M. Sheild: Rectal Polypus.

Wednesday, October 19.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 3 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.

Thursday, October 20.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. J. Bland Sutton: Hypertrophy and its Counterfeits.
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Living and Card Specimens at 8 P.M. Mr. Nettleship: Case of Persistent Hyaloid Artery.—Mr. Gunn: Chronic Abscess of the Cornea.—Mr. Hartridge: An Unusual Appearance of the Optic Disc.—Mr. Keall (Bristol): Congenital Small Lens in one Eye.—Dr. S. Herbert Habershon: On Hereditary Optic Atrophy.

Friday, October 21.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
THE PARKES MUSEUM OF HYGIENE.—8 P.M. Infectious Diseases and Methods of Disinfection.

Saturday, October 22.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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